F152 rev.2

ISSN 0429-9345

International directory of fish technology institutes

FAO FISHERIES TECHNICAL PAPER

152

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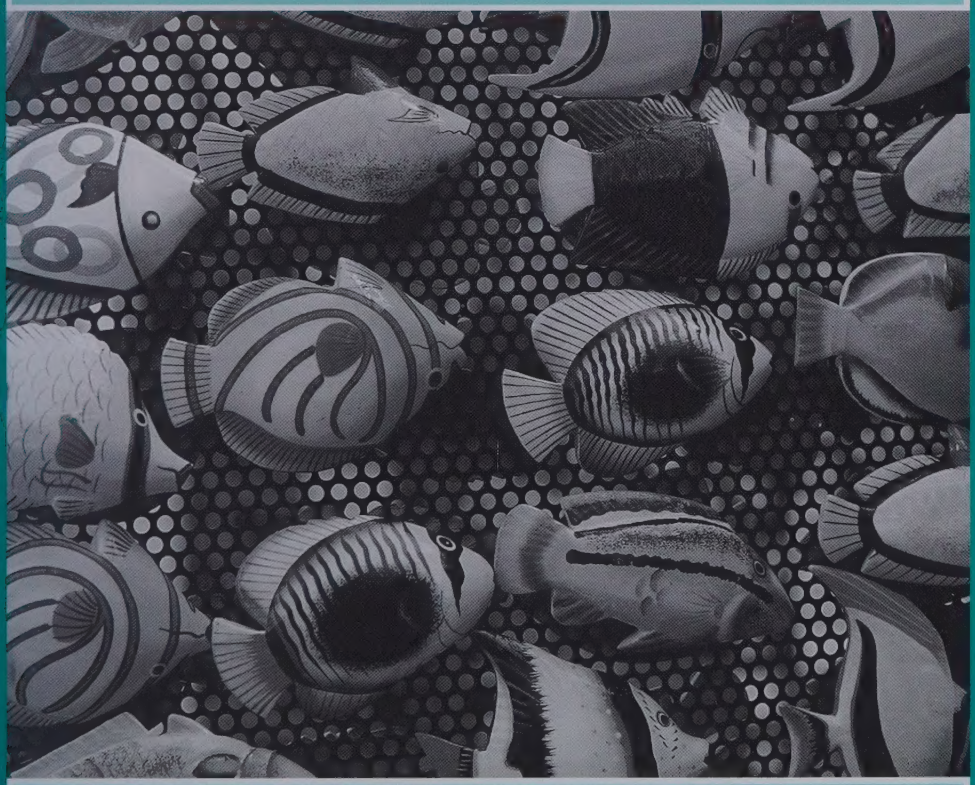

Food and Agriculture Organization of the United Nations

International directory of fish technology institutes

FAO
FISHERIES
TECHNICAL
PAPER

152

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AUG 1 1 1997

National Marine Fisheries Service
2570 Dole Street
Honolulu, Hawaii

Fish Utilization and Marketing Service
Fishery Industries Division
FAO Fisheries Department

Food
and
Agriculture
Organization
of
the
United
Nations

Rome, 1997

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M-40
ISBN 92-5-103967-4

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PREPARATION OF THIS DIRECTORY

It took two years of preparation for the third edition of this Directory to come into being. The most noticeable changes in the latest edition reflect the changing political climate of the world and the advancement of communication technology in recent years. Long existing but previously not recorded institutes now emerge onto the world stage; cable and telex addresses are becoming obsolete and are being replaced by the faster and more efficient fax and e-mail.

Attempts were made to contact as many institutes in as many countries as possible through Embassies in Rome, FAO Representatives and the Ministries of Agriculture in countries worldwide. Unfortunately the final coverage is far short of the efforts made; some could be missed by FAO, for which we apologize, some were undertaking activities outside the scope of this directory, a few suffered economic or political changes and had ceased to exist. There were others who simply did not response to our requests. Therefore the data contained in this Directory is still incomplete.

In the preparation of this edition, Mr Silvino Bucciarelli of the Computer Division, AFCT, provided technical assistance on Micro-ISIS, and computer consultant Mr Stephen Swan transformed the data from ISIS to a printable format.

FAO wishes to thank all concerned for their collaboration in the preparation of this Directory. We welcome suggestions to improve the format and the range of indices which might increase it's usefulness. We also hope that the use of this Directory would lead to closer cooperation among institutes working in the same geographical region or on similar topics.

Distribution:

FAO Fisheries Department
FAO Regional Fishery Officers
Selector HP
Institutes mentioned in
this directory

FAO Fish Utilization and Marketing Service, Fishery Industries Division.
International directory of fish technology institutes.
FAO Fisheries Technical Paper. No. 152, Rev. 2. Rome, FAO. 1997. 158p.

ABSTRACT

The International Directory of Fish Technology Institutes lists 144 institutes in 67 countries. All institutes have continuing programmes of research or development on the technology of fish as food, and some are more involved with training at secondary or tertiary levels. Basic information included in each one-page entry on each institute includes the director, address, fields of interest, working facilities, staff and their programmes as well as training activities and serial publications.

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ARGENTINA 0001

Centro de Investigaciones de Tecnología Pesquera, CITEP

(Fish Technology Research Center)

Address: Marcelo T. de Alvear 1168, Mar del Plata 7600

Tel: (54)-23-802.801
Fax: (54)-23-891.324
Email: rtcitep@criba.edu.ar

Head of Organization Director, Eng. Aurora Zugarramurdi
Type of Organization Research Institute
Responsible Authority Instituto Nacional de Tecnología Industrial, INTI (National Institute of Industrial Technology)

Number of Staff: Scientists: 26 Others: 11
Working Languages: Spanish; English

Major Fields of Interest:

Handling:	Onshore.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Chilling; Freezing; Minced products; Fish meal; Fish Oil; Fish Proteins; Fish Silage; Marinades; Economic Engineering.
Species:	Fish; Crustaceans; Molluscs; Cephalopods.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional Packaging; Traditional and New Equipment; Shelf-life.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Economic Engineering; Computer aided fish processing.

Present Programmes: Technology Division; Canned Products, Frozen Products, Preserves, Equipment and Machinery; Biochemistry Studies, Economic Engineering.

Working Facilities:

Laboratories:	Chemistry; Processing; Engineering; Biochemistry; Microbiology; Quality Control; Sensory Evaluation.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Machine Shop.

Regular Training Programmes:

Title	Frequency	Duration	Language
Quality Assurance for Food Processing	Yearly	40 Hours	Spanish

Others:

Title	Duration	Language
Economic Engineering Applied to Fish Industry	1 month	*
Technology: Freezing, Canning, Smoking, Fish Silage, Salting	1 month	*

*Spanish/English/Portuguese

AUSTRALIA 0002

International Food Institute of Queensland (IFIQ)

Address: 19 Hercules St., Hamilton, Brisbane 4007

Tel: (61)-7-3268.8555
Fax: (61)-7-3868.1853
Email: bremnea@ificrm001.prose.dpi.qld.gov.au

Head of Organization Seafood Group Leader, Dr Allan Bremner
Type of Organization Research Institute; Government Dept.
Responsible Authority Department of Primary Industries, Queensland

Number of Staff: Scientists: 8 Others: 5
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore; Live Fish Transport/Holding/Storage.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Freezing; Transport of Live Fish and Crustaceans; Chilling; Fish proteins; Fish Silage; Marinades.
Species:	Fin Fish; Reef Fish; Elasmobranchs (Sharks); Crustaceans; Holothurians(Beche-de-mer); Molluscs; Cephalopods.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Fish Waste Utilization; Shelf-Life.
Quality:	Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Training; Extension; Fishing Technology; Fish Culture; Technical Information Service Technical-Information for Industry.

Present Programmes: Post-catch Texture Changes.
Holding and Transportation of Live Fish and Crustaceans.
Processing, Packaging of Shrimp.
Spoilage Flora.
Chilling and Handling of Shark.
Harvest Stress on Aquaculture Products.
Effects of Feed and Culture practices on Aquacultured Products.
Fee-for Service Technical Consultancies for Industry.

Working Facilities

Laboratories:	Chemistry; Processing; Biochemistry; Microbiology; Quality Control; Smoker.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Fish Holding Tanks.

Training Programmes:

Title	Duration	Language
Quality and Handling Procedures	2-5 days	English

BANGLADESH 0003

Institute of Food Science and Technology (IFST)

Address: Bangladesh Council of Scientific and Industrial Research (BCSIR),
Quadrat-Khuda Road, Dhanmondi, Dhaka 1205

Tel: (880)-2-502.700
Fax: (880)-2-863.022
Cable: CONSEARCH

Head of Organization Director, Dr M. Muslemuddin
Type of Organization Research Institute
Responsible Authority Ministry of Science and Technology, People's Republic of Bangladesh, Bangladesh Council of Scientific and Industrial Research

Number of Staff: Scientists: 9 Others: 6
Working Languages: English; Bengali

Major Fields of Interest:

Handling:	Onshore; Storage.
Processing:	Drying; Salting; Freezing; Minced Products; Smoking; Fish Meal; Chilling.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Fish Waste Utilization; Shelf-Life.
Quality:	Fish Quality Control/Assurance; Fish Inspection; Sensory.
Others:	Biochemistry; Nutrition; Statistics; Chemistry; Biology; Zoology; Microbiology; Processing; Fisheries Education and Training.

Present Programmes: Post-harvest Handling; Icing; Freezing; Canning; Salting; Smoke Curing; Estimation of Nutrients; Quality Control of Fish and Fisheries Products; Fish Physiology; Fish Oil Extraction; Fish Curing; Drying; Fish Meal; Fish Waste Utilization; Packaging. .

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control; Storage and Preservation.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Taste Panel Room; Library.

Training Programmes:

Title	Duration	Language
Quality Control of Fish and Fishery Products	as required	English/Bengali
Processing, Preservation and Physiology of Fish	1 year	English
Biological Properties of Fish Oil	1 year	English

Serial Publications: BCSIR Annual/Biennial Reports

BELGIUM 0004

Rijksstation voor Zeevisserij

Address: Ankerstraat 1, Oostende 8400

Tel: (32)-59-320.805
Fax: (32)-59-330.629

Head of Organization Director, Vyncke Wilfried
Type of Organization Research Institute
Responsible Authority Ministry of Agriculture

Number of Staff: Scientists: 3 Others: 5
Working Languages: Dutch; English; French

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Smoking; Freezing; Minced Products.
Species:	Crustaceans; Molluscs.
Development:	New Fish Products; Traditional Processes; New Packaging; Traditional Equipment.
Quality:	Fish Quality Control/Assurance.
Others:	Biochemistry.

Present Programmes: Quality Assessment Methods.
Minced Fish Technology.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology.
Others:	Cold Storage; Test Kitchen; Taste Panel Room; Library; Research Vessel.

Regular Training Programmes:

Title	Frequency	Duration	Language
International Training Course in Marine Fisheries for Developing Countries	twice a year	1 month	English/French

Serial Publications: Mededelingen van het Rijksstation voor Zeevisserij (C.L.O. Gent)

BRAZIL 0005

Faculdade de Engenharia de Alimentos da Universidade Estadual de Campinas - UNICAMP

Address: Rua Monteiro Lobato, 80, Campinas 13083-970

Tel: (55)-192-397.356
Fax: (55)-192-391.513
Email: proea@fea.unicamp.br
Telex: 019-1150
Mail to: Caixa Postal 6121 Campinas, S.P. 13083

Head of Organization Director, Dr Salvador Massaguer Roig
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Dr Carlos Alberto Vogt (Reitor)

Number of Staff: Scientists: 1 Others: 1
Working Languages: English; Portuguese; Spanish

Major Fields of Interest:

- **Handling:** Onshore.
- **Processing:** Drying; Salting/Drying; Fermentation; Canning; Freezing; Minced Products; Fish Meal.
- **Species:** Crustaceans; Molluscs; Cephalopods; Algae.
- **Development:** Traditional and New Fish Products; Traditional Processes; Traditional Packaging; Traditional Equipment.
- **Quality:** Quality Control; Fish Quality Control/Assurance.
- **Others:** Biochemistry; Nutrition; Fish Culture.

Present Programmes: New Products for Institutional Use: Precooked Rice-fish, Dehydrated Tablets, Soy-wheat-fish Dehydrated Balls.
Protein and Flour Recovery from Shrimp Wastes.

Working Facilities:

- **Laboratories:** Chemistry; Processing; Biochemistry; Quality Control.
- **Others:** Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
MA in Food Technology	yearly	2-5 years	Portuguese
PhD in Food Technology	yearly	up to 4 years	Portuguese

BRAZIL 0006

Instituto de Tecnologia de Alimentos

Address: Avenida Brasil, 2880, Campinas 13073-001

Tel: (55)-192-415.222 ext154
Fax: (55)-192-415.034
Email: ctcital@ccvaz.unicamp.br

Head of Organization Director, Dr Nelson Beraquet
Type of Organization Research Institute
Responsible Authority Secretariat of Agriculture of the State of Sao Paulo

Number of Staff: Scientists: 3 Others: 16
Working Languages: Portuguese

Major Fields of Interest:

Handling:	Onshore; Depuration.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products.
Development:	Traditional and New Products; Traditional and New Processes; Traditional Packaging; Traditional and New Equipment.
Quality:	Quality Control.
Others:	Biochemistry; Training.

Working Facilities:

Laboratories:	Chemistry; Processing; Microbiology.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

BRAZIL 0007

Instituto Nacional de Pesquisas da Amazônia

Address: Alameda Cosme Ferreira 1756 -CX Postal 478, Manaus CEP:69.083-000

Tel: (55)-642-3300 Ext 339
Fax: (55)-642-3430/642-1706

Head of Organization Dr Lourençoo
Type of Organization Research Institute

Working Languages: Portuguese

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Drying; Salting; Fermentation; Smoking; Canning; Minced Products; Fish Meal; Fish Leather.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional Packaging.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Fishing Technology; Fish Culture; River Pollution.

Present Programmes: Utilization of Low Commercial Value Fish Species from the Rivers.
Use of Skin and Fish Residues to Produce Leather.
Biological Silage.
Minced Fish and Surimi Research.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Ice Making Plant; Taste Panel Room; Library; Research Vessel; Machine Shop; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Specialization		5 months	Portuguese
Master Degree		2.5 years	Portuguese
PhD Programme		4 years	Portuguese

BRUNEI DARUSSALAM 0008

Department of Fisheries

Address: 5th Floor, Athirah Plaza, Jalan Kubah Makam Di Raja, Bandar Seri Begawan 2069

Tel: (673)-2-242.067
Fax: (673)-2-242.069
Telex: Fiseres Bu 2741
Cable: Fisheries Brunei

Head of Organization: Director, Mr Hj Matdanan Hj Jaafar
Type of Organization: Government Dept.
Responsible Authority: Ministry of Industry and Primary Resources

Working Languages: Malay; English

Major Fields of Interest:

- Handling: Onboard; onshore; Live Fish Transport/holding.
- Processing: Drying; Salting/Drying; Fermentation; Smoking; Chilling; Freezing; Minced Products; Fish Meal; Marinades.
- Species: Fish; Crustaceans; Molluscs; Cephalopods.
- Development: Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; New Equipment.
- Quality: Fish Quality Control/Assurance; Quality Management Programme.
- Others: Statistics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Fishing Technology; Fish Culture; Marine Pollution; Packaging Technology; Marine Ecosystem.

Present Programmes: Stock Assessment.
Development of Aquaculture Technology.
Fishing Technology.
Processing and Packaging Technology with Emphasis on Technological Transfer to Private Sector.

Working Facilities:

- Laboratories: Chemistry; Processing; Microbiology; Quality Control.
- Others: Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Library; Research Vessel; Fish Culture Ponds; Fish Cages; Hatchery; Grow-out Ponds.

Training Programmes:

Title	Duration	Language
Fish Processing Technology	as required	Malay/English
Fishing Technology	as required	Malay/English
Aquaculture	as required	Malay/English

BULGARIA 0009

Fisheries Institute -IRP-25 Co. Ltd. Bourgas

Address: Indusrialna str 3, Burgas 8000

Tel: (359)-56-44.892
Fax: (359)-56-40.331
Telex: 83 652

Head of Organization: Dr Vesselin Popov
Type of Organization: Research Institute
Responsible Authority: Ministry of Industry - Department Food Industry

Number of Staff: Scientists: 6 Others: 30
Working Languages: Bulgarian; English; German; Russian

Major Fields of Interest:

- Handling: Onshore; Sea Aquaculture-Culture of Molluscs and Fish.
- Processing: Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Hydrolysate, Production of; Fish-based Pet Foods, Dietetic Food, Ready-to-cook Foods and Radiated Foods.
- Species: Crustaceans; Molluscs; Cephalopods.
- Development: Traditional and New Fish Products; Traditional and New Processes; Traditional Packaging; Traditional Equipment.
- Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurance.
- Others: Consultation; Management Information; Fishing Technology; Fish Culture; Aquaculture, Ecology.

Present Programmes: Hydrolisat from Black Sea Mussels for Medical and Other Aims.
Technologies for Processing of Sea Snails, (Rapana venosa).
Freshwater Fish Breeding in the Water Purification Systems of an Oil Processing Company.

Working Facilities:

- Laboratories: Chemistry; Processing; Engineering; Microbiology; Quality Control.
- Others: Pilot Plant; Cold Storage; Taste Panel Room; Library; Fish Culture Ponds; Sea Farm.

Regular Training Programmes:

Title	Frequency	Duration	Language
Sea Farming		4 semesters	Bulgarian

CAMEROON 0010

Centre for Fisheries and Oceanography Research - Institute of Animal and Veterinary Research

Address: Batoke, PMB77, Limbe

Head of Organization Director, Dr Tanlaka John Banser
Type of Organization Research Institute; Government Dept.
Responsible Authority Minister of Scientific and Technical Research

Working Languages: English; French

Major Fields of Interest:

Handling:	Onboard; Onshore; Packaging; Storage.
Processing:	Drying; Salting/Drying; Smoking; Freezing; Minced Products; Fish Meal.
Species:	Crustaceans; Molluscs; Algae.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment; Storage.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Fish Processing.
Storage/Packaging.
Quality Control.
Product Development.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Microbiology.
Others:	Library; Fish Culture Ponds; Fish Smoking/Drying Facilities.

Regular Training Programmes:

Title	Frequency	Duration	Language
Artisanal Training Course on Fish Processing	every 3 years	8 weeks	English/French

CANADA 0011

Canadian Institute of Fisheries Technology

Address: Technical University of Nova Scotia, 1360 Barrington St., Halifax NS, B3J 2X4

Tel: (1)-902-420.7758
Fax: (1)-902-420.0219
Email: gillta@tuns.ca
Mail to: P.O. Box 1000, Halifax, Nova Scotia B3J 2X4

Head of Organization Director, Dr Thomas A Gill
Type of Organization Research Institute
Responsible Authority Technical University of Nova Scotia

Number of Staff: Scientists: 10 Others: 10
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration; Aquaculture Technology.
Processing:	Drying; Salting/Drying; Smoking; Canning; Freezing; Minced Products; Fish Meal; Fish Oil; Fish Protein; Fish Silage; Marinades; Surimi.
Species:	Crustaceans; Molluscs; Cephalopods; Teleosteans; Elastmobranchs.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Snack Foods; Shelf-life; Fish Waste Utilization.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Consultation; Training; Extension; Fishery Biology; Fish Culture; Marine Pollution.

Present Programmes: Seafood Preservation and Processing. Marine Lipids. Seafood Quality. Sensory Evaluation and Product/Process Development.

Working Facilities:

Laboratories:	Chemistry; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Machine Shop.

Regular Training Programmes:

Title	Frequency	Duration	Language
Applied Fish Technology	annual	5 days	English
Thermal Processing	annual	8 days	English
Masters and PhD*			English

Others:

Title	Duration	Language
Surimi Production and Products	2 days	English

* Programmes in Food Science and Fisheries Engineering in Association with Department of Food Science and Technology, Technical University of Nova Scotia

CANADA 0012

Centre Spécialisé des Pêches

Address: 167 La Grande Allée Est, Grande rivière, Québec GOC IVO

Tel: (1)-418-385.2241
Fax: (1)-418-385.2888
Mail to: B.P. 220 Grande Rivière, Québec

Head of Organization Director, Mr Richard Loiselle
Type of Organization Research Institute; Fisheries College
Responsible Authority College de la Gaspesie et des Iles

Number of Staff: Scientists: 30 Others: 10
Working Languages: French; English

Major Fields of Interest:

Handling: Onboard; Onshore; Depuration.
Processing: Drying; Salting/Drying; Smoking; Canning; Freezing; Minced Products; Fish Meal.
Species: Crustaceans; Molluscs; Cephalopods; Algae.
Development: New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New equipment.
Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others: Biochemistry; Nutrition; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution; Aquaculture Technology.

Present Programmes: Water Quality Analysis; Marketing of Fish Products.

Working Facilities:

Laboratories: Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control; Aquaculture for Training and Research.
Others: Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Machine Shop.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Processing (University level)		3 years	French*
Fish Processing (High-school level)		900 hours	French
Fish Marketing		900 hours	French*

Others:

Quality Control of Fish Products		435 hours	French
Supervision of Fish Processing		615 hours	French
Fish Store Manager		720 hours	French
Fish Dishes Production Centre		840 hours	French*

* French with some courses in English

CANADA 0013

The Fisheries and Marine Institute of the Memorial University of Newfoundland

Address: 155 Ridge Road, Box 4920, St. John's, Newfoundland A1C 5R3

Tel: (1)-709-778.0200; **Fax:** (1)-709-778.0346 **Telex:** 016-4721

Head of Organization Executive Director, Mr Leslie O'Reilly
Type of Organization Research Institute; Univ. Dept./Higher Educ.
Responsible Authority Memorial University of Newfoundland

Number of Staff: Scientists: 130 Others: 75
Working Languages: English
Major Fields of Interest:

- **Handling:** Onboard; Onshore; Depuration; Shelflife of Fresh/Frozen Products for Retail; Chilling Principles.
- **Processing:** Drying; Canning; Salting/Drying; Freezing; Fermentation; Minced Products; Smoking; Fish Meal.
- **Species:** Groundfish; Pelagics; Crustaceans; Molluscs; Cephalopods; Algae.
- **Development:** Traditional and New Fish Products; Traditional and New Packaging (Modified Atmospheric Packaging, MAP); Traditional and New Processes; Traditional and New Equipment.
- **Quality:** Fish Inspection; Quality Control; Fish Quality Control/Assurance; Total Quality Management (TQM) ISO 9000; Industrial Sanitation; Statistical Process Control; Microbiological/Chemical Indicators; HACCP.
- **Others:** Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution; Studies, Maritime Fishing Masters; Safety at Sea; Fisheries Management; Fishing Methods; Repairs and Maintenance; Maintenance/Production Supervision; Fisheries Extension Methodology; Coastal Zone Management.

Working Facilities:

- **Laboratories:** Chemistry; Biology; Processing; Engineering; Microbiology; Quality Control; Aquaculture.
- **Others:** Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Research Vessel; Machine Shop; Fish Culture Ponds; Ship Simulator; Flume Tank.

Regular Training Programmes:

Title	Frequency	Duration	Language
Advanced Diploma - Fisheries Development	yearly	9 months	English
MSc, Adv. Dipl Aquaculture	yearly	12 months	English
Advanced Diploma in Coastal Zone Management	yearly	12 months	English
Dip-Seafood Processing	yearly	10 months	English
Technical Certificate Quality Assurance	yearly	12 weeks	English
Others:			
Seafood Processing; Aquaculture First Line Supervision; Maintenance (certificate in)		various	English
Skilled Seafood Processing Worker Program		various	English
Vocational Training on Harvesting Sector		various	English
Management Courses		various	English

CHILE 0014

Food Engineering Department

Address: P.O. Box 4059, Valparaiso

Tel: (56)-32.281.869
Fax: (56)-32-281.871
Email: Ali@aix1.ucv.cl
Telex: 230389 UCVAL.CL

Head of Organization Director, Mr Antonio Cifuentes
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Catholic University of Valparaiso

Number of Staff: Scientists: 10 Others: 12
Working Languages: Spanish; English

Major Fields of Interest:

- **Handling:** Onshore.
- **Processing:** Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products.
- **Species:** Fish; Crustaceans; Molluscs.
- **Development:** Traditional and new Fish Products; Traditional and New Processes.
- **Quality:** Quality Control; Fish Quality Control/Assurance.
- **Others:** Biochemistry; Nutrition; Consultation; Extension.

Present Programmes: Fish Handling on Shore-Bulk Handling and Storage.
Fish Processing-Fish Proteins, Fish Silage, Surimi.
Development of Fish Products.
Development of New Processes-Crustacean Waste Utilization, Shelf-life.
Fish Quality Control/Assurance.

Working Facilities:

- **Laboratories:** Chemistry; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
- **Others:** Cold Storage; Library.

CHILE 0015

Fundación Chile

Address: Parque Antonio Rabat, Santiago SUR 6165

Tel: (56)-2-218.5211
Fax: (56)-2-242.6900
Telex: 440239 FUNDCZ
Mail to: P.O. Box 773 Santiago

Head of Organization Director General, Dr Anthony Wylie
Type of Organization Centre for Technology Transfer
Responsible Authority Autonomous, Privat non-profit

Number of Staff: Scientists: 50 Others: 40
Working Languages: English; French; Spanish

Major Fields of Interest:

Handling:	Onshore; Depuration; Internal Market; Retailing.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products.
Species:	Crustaceans; Molluscs; Cephalopods; Algae.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Nutrition; Statistics; Economics; Consultation; Training; Extension; Fish Culture; Marine Pollution; Aquaculture; Nutrition, Icthyopathology; Introduction of Species and New Farming Technique.

Present Programmes: Aquaculture; Marine Pollution; Quality Assurance/Control; Product Development; Development of Domestic and Export Markets.

Working Facilities:

Laboratories:	Chemistry; Processing; Microbiology; Quality Control; Fish Feed Formulation; Trials and Production; Fish Nutrition; Ichthiopathology.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Fish Culture Ponds; Several Pilot Projects in Fish/Shellfish Culture; Fish/Shellfish Feed Production.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Handling and Processing			Spanish/English
Aquaculture Techniques			Spanish/English
Ichthiopathology			Spanish/English
Quality Control and Assurance			
Spanish/English			

Serial Publications: Aquanoticias International (quarterly)

CHINA 0016

Dalian Fisheries College

Address: Heishijiao, Dalian 116024

Tel: (86)-411-467.1025
Fax: (86)-411-467.1639
Cable: 3055

Head of Organization President, Dr Huanliang Liu
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Agriculture Department of the State

Number of Staff: Scientists: 269 Others: 200
Working Languages: Chinese; English

Major Fields of Interest:

- **Handling:** Onshore.
- **Processing:** Freezing; Minced Products.
- **Species:** Crustaceans; Molluscs; Algae.
- **Development:** Traditional Fish Products.

Present Programmes: Mariculture.
Freshwater Fish and other Animal Culture.
Fish Processing.
Fishery Resources.

Working Facilities:

- **Laboratories:** Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Fishery Equipment.
- **Others:** Cold Storage; Library; Machine Shop; Fish Culture Ponds.

Serial Publications: Journal of Dalian Fisheries College

CHINA 0017

Shanghai Processing Technique Development Centre

Address: 486 Gong Qing Road, Fuxing Island, Shanghai 200090

Tel: (86)-21-541.3696
Cable: 3790

Head of Organization Mr Xue-Liang Zhu
Type of Organization Research Institute; National Authority
Responsible Authority Shanghai Fisheries Corp.

Number of Staff: Scientists: 19 Others: 21
Working Languages: Chinese

Major Fields of Interest:

Processing:	Salting/Drying; Smoking; Canning; Minced Products.
Development:	Traditional and New Fish Products.
Quality:	Quality Control.
Others:	Nutrition; Training; Fishery Biology.

Present Programmes: Utilization of Fish Products.

Working Facilities:

Laboratories:	Chemistry; Processing; Microbiology; Quality Control.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

Training Programmes:

Title	Duration	Language
as required		English/Chinese

CHINA 0018

Xiamen Fisheries College

Address: 10 Jia Geng Road, Jimei, Xiamen 361021

Tel: (86)-592-606.8203
Fax: (86)-592-606.8476

Head of Organization Jiqing Yang
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Ministry of Agriculture

Number of Staff: Scientists: 4 Others: 1
Working Languages: Chinese; English

Major Fields of Interest:

- **Handling:** Onshore.
- **Processing:** Fermentation; Freezing; Minced Products; Fish Meal; Agar/Alginate/Carrageenan; Chitin/Chitosan.
- **Species:** Molluscs; Cephalopods; Algae.
- **Development:** New Fish Products; New Processes; New Packaging; Traditional and New Equipment.
- **Quality:** Fish Quality Control/Assurance.
- **Others:** Fishing Technology; Fish Culture; Seafood Plant Waste Utilization.

Working Facilities:

- **Laboratories:** Chemistry; Processing; Biochemistry; Microbiology; Quality Control.
- **Others:** Ice Making Plant; Cold Storage; Library; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Seafood Processing Technology			Chinese
Frozen Food Technology			Chinese
Seafood Plant Waste Utilization			Chinese
Seaweed Chemistry and Seaweed Industry			Chinese

Serial Publications: Journal of Xiamen Fisheries College

COMMONWEALTH OF DOMINICA 0019

Fisheries Development Division

Address: Ministry of Agriculture, Government Head Quarters, Roseau

Tel: (854)-809-448.2401 ext3391/3392
Fax: (854)-809-448.0140/7999

Head of Organization Senior Fisheries Officer, Ms Gloria Augustus
Type of Organization Government Dept.
Responsible Authority Ministry of Agriculture

Number of Staff: Scientists: 5 Others: 15
Working Languages: English

Major Fields of Interest:

Handling:	Onshore.
Processing:	Drying; Salting/Drying; Smoking; Freezing.
Species:	Crustaceans; Algae.
Development:	New Fish Products; Traditional Processes; Traditional Equipment.
Quality:	Quality Control.
Others:	Nutrition; Statistics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Management Information; Fishing Technology; Fish Culture; Marine Pollution; Conservation and Protected Areas.

Present Programmes: Fish Handling, Processing and Quality Control.
Outboard Engine Maintenance.
Marine Radio Communication Training.
Biological Data Collection.
Tuna Long Lines on Small, Open, Day-boats.

Working Facilities: Research Vessel; Machine Shop; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Tuna Long Line Operations		6 weeks	English
Safety and Navigation at Sea		5 days	English
Prawn culture		6 days	English

COTE D'IVOIRE 0020

Association Ouest Africaine pour le Développement de la Pêche Artisanale (ADEPA) - Secrétariat Technique

Address: 17BP56, Abidjan 17

Tel: (225)-227.588
Fax: (225)-227.592

Head of Organization: Director Dr Demba Yeum Kane
Type of Organization: Regional Authority
Government Dept.
O.N.G.

Number of Staff: Scientists: 2 Others: 4
Working Languages: French; English

Major Fields of Interest:

Processing:	Drying; Salting/Drying; Fermentation; Smoking; Freezing.
Species:	Fish; Crustaceans; Molluscs; Cephalopods.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and new Packaging; Traditional and New Equipment.
Others:	Training.

Present Programmes: Improvement of Post-harvest Utilization of Artisanal Fish Catches.

CROATIA 0021

"Ruder Boskovic" Institute, Center for Marine Research, Zagreb Laboratory for Aquaculture

Address: Bijenicka Cesta 54, Zagreb HR 10000

Tel: (385)-1-434.221
Fax: (385)-1-434.221

Head of Organization: Dr Bozena Cosovic
Type of Organization: Research Institute

Number of Staff: Scientists: 8 Others: 3
Working Languages: Croatian; English

Major Fields of Interest:

Handling:	Onboard; Onshore.
Species:	Molluscs.
Quality:	Fish Inspection; Quality Control.
Others:	Nutrition; Fishing Technology; Fish Culture.

Present Programmes: Pathology, Genetics and Nutrition in Aquatic Organisms.

Working Facilities:

Laboratories:	Chemistry; Quality Control.Library; Research Vessel; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Aquaculture	yearly	35 hours	Croatian/English
Fish Diseases	yearly	21 hours	Croatian/English

Others:

Title	Duration	Language
Courses for Fish Technologists	10 days	Croatian/English

CUBA 0022

Centro de Investigaciones Pesqueras

Address: 5ta Ave y 248 Barlovento, Sta. Fe, Ciudad Habana

Head of Organization Dr Adela Prieto Trujillo.
Type of Organization Research Institute
Responsible Authority Orlando Rodriguez Romay - Minister of the Fishery Industries

Working Languages: English; Spanish

Major Fields of Interest:

Handling:	Onshore.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
Species:	Fish; Crustaceans; Molluscs.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Recovery of Compounds with Biological Activities with Marine Organisms: Oil from Shark Livers for Pharmaceutical Use, Glycerol Esters (triglicerides) from Liver Oil, Enrichment of Oil with Polyunsaturated Oils and their Concentrates, Oil from Liver of Sea Turtle, Silage. Utilization of Fish: Leather and Product Development. Project for Fish Processing Plants: Rapid Chilling of Fish/Shrimps from Optimum Ice/Fish and Ice/Shrimp Ratio.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Research Vessel; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Waste Utilization	Daily	1 month	
Fish Silage Production	Daily	15 Days	
Snack Food Products	Daily	1 month	

Others:

Title	Duration	Language
Fish Products Irradiation	15 Days	

Serial Publications: Revista Cubana de Investigaciones Pesqueras

CZECH REPUBLIC 0023

Fisheries High School, Vodnany

Address: Zatisi 480/II, Vodnany 38919

Tel: (42)-342-905.404/05
Fax: (42)-342-905.406

Head of Organization Dipl. Ing. Miroslav Merten
Responsible Authority Ministry of Education and Physical Training

Number of Staff: Scientists: 8 Others: 27
Working Languages: Czech; English; German; Russian; Slovak

Major Fields of Interest:
- **Processing:** Education and Training in Processing Technology.
- **Others:** Training; Fishery Biology; Management Information; Fishing Technology; Fish Culture.

Present Programmes: All New Production and Processing Technologies.

Working Facilities:
- **Laboratories:** Chemistry; Biology.
- **Others:** Library; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Breeding Fishes in Ponds	as required	5 days	Czech
Breeding of Salmonids	as required	5 days	Czech
Processing and Marketing of Fish	as required	5 days	Czech
Management	as required	5 days	Czech

CZECH REPUBLIC 0024

Research Institute of Fisheries

Address: Vodnany 38925

Tel: (42)-342-905.906
Fax: (42)-342-906.208

Head of Organization Director, Mr Jan Kouril
Type of Organization Research Institute
Responsible Authority Independent Body

Number of Staff: Scientists: 18 Others: 40
Working Languages: Czech; English; German; Russian; Slovak

Major Fields of Interest:

Processing:	Minced Products; Fish Meal.
Species:	Fresh Water Fish; Algae.
Development:	Traditional and New Fish Products; Traditional and New Process; Traditional and New Packaging; Traditional and New Equipment.
Quality:	Fish Inspection; Quality Control.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Management Information; Fishing Technology; Fish Culture.

Present Programmes: Freshwater Fish Culture.

Working Facilities:

Laboratories:	Chemistry; Biology.
Others:	Library; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Courses for Beginners in Fisheries	twice yearly	2 weeks	Czech/English/Russian

Others:

Title	Duration	Language
Water Toxicology	2 weeks	English
Protection of Nature Resources	2 weeks	English
Fish Genetics	as required	English
Processing of Fish	as required	English
Fresh Water Fish Culture	as required	English

Serial Publications: Bulletin of RIF

DENMARK 0025

Danish Institute for Fisheries Research, Dept. of Seafood Research

Address: Technical University, Bldg. 221, Lyngby DK-2800

Tel: (45)-45-883.322
Fax: (45)-45-884.774
Email: fish@ffl.min.dk

Head of Organization Director, Dr Torger Boerresen
Type of Organization Research Institute; Univ. Dept./Higher Educ.
Responsible Authority Ministry of Agriculture and Fisheries

Number of Staff: Scientists: 32 Others: 31
Working Languages: Danish; English

Major Fields of Interest:

Handling:	Quality Assurance On board; White/Pelagic Fish; Fish for Reduction.
Processing:	Freezing; Fermentation; Drying; Salting; Smoking; Canning; Minced Products; Fish Meal; Fish Oil.
Quality:	Development of Quality Management Systems; Quality Improvement of Frozen Fish; Quality Optimization of Lightly Preserved Products.
Others:	Microbial Aspects: Growth, Metabolism and Interaction of Microorganisms; Improvement of Product Stability; Biopreservation; Byproduct Utilization: Mince and Hydrolysates; Utilization of guts.

Present Programmes: Integrated Quality Assurance.
Quality of Frozen Fish.
Herring Processing.
Fish Oil Refinement and Application in Foods.

Working Facilities:

Laboratories:	Chemistry; Processing; Biochemistry; Microbiology; Quality Control; Sensory Analysis.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Machine Shop.

Regular Training Programmes:

Title	Frequency	Duration	Language
Quality Assurance in the Fish Industry	yearly	3 weeks	Danish
Product Technology in the Fish Industry	yearly	3 weeks	Danish

DENMARK 0026

Danish Institute for Fisheries Technology and Aquaculture (DIFTA)

Address: Willemoesvej, The North Sea Centre, Hirtshals DK-9850

Tel: (45)-98-944.300
Fax: (45)-98-942.226
Email: bibl.nc@inet.uni-c.dk
Telex: 67 757 fti dk
Mail to: P.O. Box 59, Hirtshals DK-9850

Head of Organization: Managing Director, Ms Astrid K Thygesen
Type of Organization: Research Institute
Responsible Authority: Danish Ministry of Industry

Number of Staff: Scientists: 30 Others: 20
Working Languages: Danish; English

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration.
Processing:	Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
Species:	Crustaceans.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Nutrition; Economics; Consultation; Training; Extension; Fishing Technology; Fish Culture.

Working Facilities:

Laboratories:	Chemistry; Processing; Engineering; Microbiology; Quality Control.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Quality Management	yearly	3 weeks	*

Others:

Title	Duration	Language
Catch Technology	1 to 4 weeks	*
Fish Processing/Fish Technology	1 to 4 weeks	*

* Danish/English

DENMARK 0027

Danish Institute of Fisheries Economics Research (DIFER)

Address: South Jutland University Centre, Niels Bohrs Vej 9, Esbjerg DK-6700

Tel: (45)-79-141.111
Fax: (45)-79-141.199

Head of Organization: Mr Hans Frost
Type of Organization: Research Institute; Univ. Dept./Higher Educ.

Number of Staff: Scientists: 7 Others: 3

Working Languages: Danish; English

Major fields of interest: Fish Technology Based Economic Analysis

DENMARK 0028

Fiskeriteknologuddannelsen, Ingeniorhojskolen Esberg

Address: Niels Bohrs Vej 8, Esberg 6700

Tel: 45-79-127.666
Fax: 45-75-453.643

Head of Organization Headmaster, Mr Kurt Kallestrup
Type of Organization Research Institute
Responsible Authority Ministry of Education

Number of Staff: Scientists: 15 Others: 5
Working Languages: Danish

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
Species:	Crustaceans; Molluscs; Cephalopods; Algae.
Development:	Traditional and New Fish Products; Traditional and New Processes.
Quality:	Quality Control.
Others:	Biochemistry; Statistics; Economics; Fishery Resources; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Working Facilities:

Laboratories:	Chemistry; Biology; Biochemistry; Microbiology.

DENMARK 0029

Hoejmarklaboratory Ltd.

Address: Adelvej 11, Lem 6940

Tel: (45)-97-343.366
Fax: (45)-97-343.435
Email: hllab@inet.unl-c.dk

Head of Organization Managing Director, Mrs Greta Jakobsen
Type of Organization Research Institute
Responsible Authority Private Independent Laboratory, reporting to the Danish Ministry of Industrial Affairs

Number of Staff: Scientists: 10 Others: 5
Working Languages: Danish; English

Major Fields of Interest:

- **Handling:** Onshore.
- **Processing:** Fish Proteins.
- **Species:** Crustaceans; Molluscs; Cephalopods; Algae.
- **Development:** Traditional and New Fish Products; Traditional and New Processes; Biotechnology.
- **Quality:** Fish Inspection; Quality Control; Fish Quality Control/Assurance.
- **Others:** Biochemistry; Consultation; Training; Fishing Technology.

Present Programmes: Process Development for Functional and Nutritious Fish Proteins. Environmental Analysis and Cleaner Technology in Fish Processing. Utilization of Waste from Fish Processing.

Working Facilities:

- **Laboratories:** Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
- **Others:** Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen.

Training Programmes:

Title	Duration	Language
Quality Assurance and Control	1 to 10 days	Danish/English

Serial Publications: Hygiene and Quality Instructions for Staff Working within the Food Industry (Danish)

DENMARK 0030

University of Aalborg, Aquaculture Biotechnology Laboratory

Address: Sohngaardsholmsvej 57, Aalborg DK-9000

Fax: (45)-98-142.555
Telex: 69523 auc iv dk

Head of Organization Research Leader/Associate Professor, Dr Ewen Mclean
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Dean, Faculty of Technology and Science, Dept. of Civil Engineering.

Number of Staff: Scientists: 3 Others: 2
Working Languages: Danish; English; French

Major Fields of Interest:

Handling:	Onshore; Depuration; Live Fish Transport and Holding.
Processing:	Drying; Salting/Drying; Smoking; Freezing; Fish Meal.
Development:	Traditional and new Fish Products; New Processes; Traditional and New Packaging.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Statistics; Consultation; Training; Extension; Fish-Culture; Marine-Pollution; Culture of all Aquatic Organisms; Biotechnology Research and Development as applied to Product Development.

Present Programmes: Flesh Quality Assessment and Manipulation.
Development of Diets for Modifying Cultured Animal Flesh Characteristics for Specific Processing Requirements.

Working Facilities:

Laboratories:	Chemistry; Biology; Biochemistry; Microbiology; Quality Control.
Others:	Library; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Biotechnology MSc	continuous	2 years	English
Aquaculture MSc	continuous	2 years	English
PhD, all fields	continuous	3+ years	English

ECUADOR 0031

Instituto Nacional de Pesca

Address: Letamendi 102 y La Ría, Guayaquil 09-04-13151

Tel: (593)-4-407.680/ 401.773/ 401.776/ 401.779
Fax: (593)-4-402.304/ 405.859/ 405.808
Email: inp@inp.gov.ec

Head of Organization Executive Director, Dr Harold Muller-Gelinek Ycaza
Type of Organization Research Institute
Responsible Authority Sub-secretariate of Fisheries Resources, Ministry of Industries, Commerce, Intergation and Fisheries (MICIP)
Number of Staff: Scientists: 65 Others: 15
Working Languages: Spanish; English

Major Fields of Interest:

- **Handling:** Onshore.
- **Processing:** Drying; Salting/Drying; Smoking; Canning; Freezing; Minced Products; Fish Meal.
- **Species:** Crustaceans; Molluscs; Cephalopods; Algae.
- **Development:** Traditional and New Products; Traditional Processes; Traditional Packaging; Traditional Equipment.
- **Quality:** Fish Inspection; Quality Control; Fish Quality Control/Assurance.
- **Others:** Biochemistry; Nutrition; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine and Estuarine Contamination-Physical; Biological and Chemical Oceanography; Geochemistry and Aquaculture Water Quality.

Present Programmes: Bio-ecological studies on small pelagic and demersal fish; Study on Coastal Artisanal Fisheries; Investigation of Peneid Shrimp Resources; Resource Evaluation and Management of Marine Shrimp Post-laval Fisheries; Production of Black Bivalve Seeds in Controlled Environment for Fattening in Shrimp Ponds and Artisanal Hatcheries; Multi-disciplinary Study of Internal Water of the Gulf of Guayaquil; Culture of *Gracilaria sp.* in Lab. and Shrimp Ponds, Technical and Economical Analysis; Bio-ecological Study of Sea Cucumber (*Isostichopus fuscus*); Artisanal Plot, Plan Fishing of Galapagos Island. Biological Fishing/Distribution and Relative Abundance Studies of Tuna, Beak Fish and Shark Onboard Associated Long-line Ships; Exploration and Assessment of Giant Squid (*Dosidicus gigas*) Landings in Ecuadorian Coastal Waters to establish the Feasibility of an Artisanal Fishery; Diagnosis and identification of pathogenic agents and diseases in bioassay and quarantine laboratories; Evaluation on post-larvae catch of Peneidae Shrimps and its Effects on Farms.

Working Facilities:

- **Laboratories:** Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control.
- **Others:** Pilot Plant; Cold Storage; Library; Research Vessel; Fish Culture Ponds.

Serial Publications: Boletin Cientifico; Boletines Informativos - Estadisticas; Boletin Informativo; Revista De Ciencias del Mar y Limnología.

EGYPT 0032

Alexandria Fish Technology Centre

Address: Aflaton Street, El-Chatby, Alexandria

Tel: (20)-3-597.1960/1862
Fax: (20)-3-597.2780
Telex: 54467 UNIVY UN

Head of Organization Executive Director, Professor Dr Esam Kamel Moustafa
Type of Organization Research Institute, University/Higher Education Department
Responsible Authority Professor Dr M. Sabbah, Chairman of Board of Director and Dean, Faculty of Agriculture

Number of Staff: Scientists: 6 Others: 5
Working Languages: Arabic; English

Major Fields of Interest:

- **Handling:** Onshore.
- **Processing:** Drying; Salting/Drying; Fermentation; Smoking; Canning; Chilling; Freezing; Minced Products; Fish Meal.
- **Species:** Fish; Crustaceans; Mollusc; Cephalopods.
- **Development:** Traditional and New Fish Products; Traditional and New Processes; Traditional Packaging; Traditional and New Equipment.

ETHIOPIA 0033

Fishery Resources Development Department

Address: Addis Ababa 623476

Tel: (251)-1-151.906
Fax: (251)-1-613.660
Telex: 21390

Head of Organization Acting Head, Mr Mengistu Tarekegn
Type of Organization Government Dept.
Responsible Authority Fishery Resources Development Department, Ministry of Agriculture.

Number of Staff: Scientists: 5 Others: 22
Working Languages: Amharic; English

Major Fields of Interest:

- **Handling:** Onshore.
- **Processing:** Drying; Smoking; Freezing; Fish meal.
- **Development:** Traditional Fish Products; Traditional Processes; Traditional Packaging.
- **Quality:** Fish Inspection.
- **Others:** Training; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Management Information; Fishing Technology; Fish Culture.

Working Facilities:

- **Laboratories:** Processing; Quality Control; Ice Making Plant; Cold Storage; Library.

FAROE ISLANDS 0034

Food and Environmental Agency (Heilsufrodiliga Starvsstovan)

Address: Debesartrod FR-100, Tdrshavn

Tel: (298)-15.300
Fax: (298)-10.508
Email: FeAgency@his.fo

Head of Organization Dr Mrs Marjun Hanusardottir
Type of Organization Research Institute; Government Agency
Responsible Authority Faroese Local Government

Number of Staff: Scientists: 22 Others: 6
Working Languages: Faroese

Major Fields of Interest:

- **Handling**: Onboard; Onshore.
- **Processing**: Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
- **Quality**: Quality Assurance; Quality Management; HACCP; Quality Measurements; Sensuric Evaluations.
- **Others**: Fish Culture; Marine Pollution; Laboratory Analysis on Food and Environment.

Present Programmes: Shark Liver Oil.
Non-traditional Fish Species.
PCB in Fish Species.
HACCP.
Fish Freshness Measurements.

Working Facilities:

- **Laboratories**: Chemistry; Microbiology; Virus; Sensuric Evaluation.

FINLAND 0035

VTT Biotechnology and Food Research

Address: Biologinkuja 1, Espoo 02150

Tel: (358)-0-45.61
Fax: (358)-0-455.2103
Mail to: PL 1500 020044 VTT

Head of Organization: Director, Dr Juha Ahvenainen
Type of Organization: Research Institute

Number of Staff: Scientists: 2 Others: 2
Working Languages: Finnish

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration.
Processing:	Salting/Drying; Fermentation; Minced Products; Filleting.
Development:	Traditional and New Fish Products; Traditional Processes; Traditional and New Packaging; Traditional Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Training; Fishing Technology; Marine Pollution.

Present Programmes: Hygiene in Fish Plants.
Retail Packaging of Fresh Fish.

Working Facilities:

Laboratories:	Chemistry; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

Training Programmes:

Title	Duration	Language
Fish Quality Control	2 to 3 days	Finnish

Serial Publications: VTT Publications (Occasionally on Fish Research)

FRANCE 0036

Association pour le Développement de la Recherche Appliquée aux Industries Agricoles et Alimentaires, (ADRIA)

Address: 6 Rue de L'Université, Quimper 29334 Cedex

Tel: (33)-98-906.232
Fax: (33)-98-907.328
Email: Bourgeoi@univ-brest.br

Head of Organization: Dr Claude Marcel Bourgeois
Type of Organization: Research Institute

Number of Staff: Scientists: 15 Others: 45
Working Languages: French; English

Major Fields of Interest:

- **Handling**: Onboard; Onshore; Depuration.
- **Processing**: Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
- **Species**: Crustaceans; Molluscs; Cephalopods; Algae.
- **Quality**: Quality Control; Fish Quality Control/Assurance.
- **Others**: Biochemistry; Nutrition.

Working Facilities:

- **Laboratories**: Chemistry; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
- **Others**: Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

FRANCE 0037

Centre Atlantique d'Etudes en Cosmétologie

Address: 68 Bld. Eugene Orieux, Nantes 44000

Tel: (33)-40-742.322
Fax: (33)-40-140.287

Head of Organization Professor De Roeck-Holtzhauer
Type of Organization Research Institute; Univ. Dept./Higher Educ.
Responsible Authority University of Nantes

Number of Staff: Scientists: 1
Working Languages: French

Major Fields of Interest:

Processing:	Upgrading of Non-Food Fish
Species:	Molluscs; Algae.
Development:	New Fish Products.
Others:	Biochemistry; Consultation; Training; Algae, Biochemical Analysis of (HPLC, CPG).

Present Programmes: Analysis of Micro- and Macro- Algae.
Analysis of Molluscs.

Working Facilities:

Laboratories:	Biochemistry; Microbiology; Quality Control; Cosmetology.
Others:	Cold Storage; Library; Computers.

Regular Training Programmes:

Title	Frequency	Duration	Language
DESS Cosmetology	yearly	1 year	English/French
AU Technicians	yearly	8 months	English/French

Others:

Title	Duration	Language
Congress on Biotechnologies		English/French

FRANCE 0038

Centre de Coopération Internationale en Recherche Agronomique pour le Développement - Systèmes Agro-alimentaires Ruraux (CIRAD-SAR)

Address: 73 Rue J.F. Breton, Montpellier 34032

Tel: 33-67-615.700
Fax: 33-67 611.223
Email: LeMoigne@montp.cirad.fr
Telex: 485221 F

Head of Organization Director, Mr Marc Le Moigne
Type of Organization Research Institute for Development of Tropical Areas
Responsible Authority French Ministries of Research and Cooperation

Working Languages: French; English; Spanish; Portuguese

Major Fields of Interest:

Handling:	Onboard.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
Species:	Fish; Cephalopods; Algae.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment.
Quality:	Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension.

Present Programmes: Fish Drying in Africa.
Fish Dewatering by Osmotic Dehydration.
Fish Freezing into Concentrated Solutions onboard.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Drying Equipment; Freezing Apparatus.

Regular Training Programmes:

Title	Frequency	Duration	Language
Seafloor courses for engineering students	yearly	1 week	French/English/Spanish
Various training including for laboratories	yearly	1-6 months	

Others:

Title	Duration	Language
As required	1-6 months	

FRANCE 0039

IFREMER (Institut Français de Recherche et d'Exploitation de la Mer)

Address: Rue de l'ile d'Yeu, Nantes Cedex 03 44311

Tel: (33)-40-374.070
Fax: (33)-40-374.071
Email: fdupe@ifremer.fr
Telex: 711196

Head of Organization Director of Department, Dr Lucay Han-Ching
Type of Organization Research Institute
Responsible Authority M. Pierre David, Chairman and Chief Executive Officer of IFREMER
Durand M. Henri, Director of Centre of IFREMER of Nantes

Number of Staff: Scientists: 22 Others: 18
Working Languages: English; French

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
Species:	Crustaceans; Molluscs; Algae.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment.
Quality:	Fish Quality Control/Assurance.
Others:	Biochemistry; Consultation; Training; Extension; Microbiology.

Present Programmes: Fish Quality Control/Assurances; Fish Processing.
Extraction of Marine Molecules.

Working Facilities:

Laboratories:	Chemistry; Processing; Engineering; Biochemistry; Microbiology; Quality Control; Biophysics.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

Training Programme:

Title	Duration	Language
As required		French

Serial Publications: BIBLIOMER (Internal Report of Bibliographic Review)

FRANCE 0040

Institut Français de Recherche pour l'Exploitation de la Mer (IFREMER)

Address: 155 Rue Jean-Jacques Rousseau, Issy-Les-Moulineaux 92138

Tel: (33)-1-464.821.00
Fax: (33)-1-464.822.96

Head of Organization President Director-General, Mr Pierre Papon
Type of Organization Research Institute
Responsible Authority Ministère de l'Enseignement Superieur et de la Recherche (M.E.S.R.)
Ministère de l'Agriculture et de la Pêche
Ministère de l'Environnement

Number of Staff: Scientists: 474 Others: 37
Working Languages: French

Major Fields of Interest:

- **Handling:** Onboard.
- **Processing:** Drying; Salting/Drying; Smoking; Freezing; Surimi.
- **Species:** Crustaceans; Molluscs; Algae.
- **Development:** New Fish Products; New Processes; New Equipment.
- **Quality:** Fish Inspection; Quality Control; Fish Quality Control/Assurance.
- **Others:** Biochemistry; Nutrition; Statistics; Economics; Consultation; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Fishing Technology; Fish Culture; Marine Pollution.

Working Facilities:

- **Laboratories:** Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
- **Others:** Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Research Vessel; Machine Shop; Fish Culture Ponds.

GERMANY 0041

Federal Research Centre for Fisheries

Address: Palmaille 9, Hamburg D-22767

Tel: (49)-40-3890.5177/8
Fax: (49)-40-3890.5200

Head of Organization Director, Professor Dr Gerd Hubold
Type of Organization Research Institute
Responsible Authority Federal Ministry of Food, Agriculture and Forestry

Number of Staff: Scientists: 67 Others: 221
Working Languages: German; English

Major Fields of Interest:

Species:	Fish; Crustaceans; Molluscs; Cephalopods; Algae.
Development:	New and Traditional Processes.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Statistics; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution; Ecotoxicology; Radioecology; Pathology.

Present Programmes: Gear Development.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control; Radiochemistry; Fish Market Sampling.
Others:	Cold Storage; Library; Research Vessel; Fish Culture Ponds.

Training Programme:

Title	Duration	Language
Various	14days	German

Serial Publications: Informationen fuer die Fischwirtschaft ISSN 0020-0344
Archive of Fishery and Marine Research ISSN 0003-9063
Informationen ueber die Fischwirtschaft des Auslandes ISSN 0020-0379

GHANA 0042

Food Research Institute

Address: P.O. Box M20
Accra
Ghana

Tel: 00233-21-777330
Fax: 00233-21-772023, 777647

Head of Organization: Director, Mrs Abigail Andah
Type of Organization: Research Institute; National Authority
Responsible Authority: Council for Scientific and Industrial Research
Ministry of Science and Technology

Number of Staff: Scientists: 5 Others: 5
Working Languages: English

Major Fields of Interest:

- Handling: Onshore.
- Processing: Drying; Salting/Drying; Fermentation; Smoking; Canning; Development of Fish Based Products.
- Species: Crustaceans.
- Development: Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment; Storage Structures and Techniques.
- Quality: Fish Quality Control/Assurance.
- Others: Biochemistry; Nutrition; Consultation; Training; Extension.

Present Programmes: Training of Fisheries Extension Officers in Africa.
Research on Traditional Processing and Storage of Fish and Development of Fish-based Products.

Working Facilities:

- Laboratories: Processing; Engineering; Microbiology; Quality Control.
- Others: Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
International/Regional Training and Applied Research Project for Artisanal Fish Processing	yearly	6 weeks	English

Others:

Title	Duration	Language
Appropriate Fish Processing and Preservation	1-4 weeks	English

GREECE 0043

Department of Fisheries and Aquaculture, Technological Educational Institution of Mesolonghi (T.E.I.)

Address: Mesolonghi 30200

Tel: (30)-631-26.121
Fax: (30)-631-25.183/23.204
Telex: 312457
Mail to: T.E.I. Mesolonghi, Mesolonghi 30200

Head of Organization Mrs Maria Makri-Seremeti
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Government

Number of Staff: Scientists: 50 Others: 7
Working Languages: Greek

Major Fields of Interest:

Handling:	Onshore.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Stock Assessment; Fishery Biology; Fish Culture; Marine Pollution; Water Monitoring; Keeping Pure Stock and Culturing Phyto-zooplankton; Histology; Fish Pathology.

Present Programmes: Lagoonal Pollution Monitoring.
New Species of Phytoplankton for Mass Production.
Study of Fishes of Family Mugilidae in Mesolonghi Lagoon.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology; Fish Pathology; Phyto-zooplankton Culture; Aquariums.
Others:	Library; Fish Keeping Tanks; Atomic Absorption Analyzer.

Regular Training Programmes:

Title	Frequency	Duration	Language
School Course		3.5 years	Greek

GUATEMALA 0044

Instituto Centroamericano de Investigación y Tecnología Industrial, ICAITI

Address: Avenida La Reforma 4-47, Zone 10, Guatamala 01010

Tel: (502)-2-310.631
Fax: (502)-2-317.470
Telex: 5312 ICAITI-GU
Cable: ICAITI
Mail to: Apartado Postal 1552-01901

Head of Organization: Director, Lic Luis Fidel Cifuentes
Type of Organization: Research Institute

Working Languages: Spanish; English

Major Fields of Interest:

Processing:	Drying; Salting/drying.
Development:	New Fish Products; Traditional and New Packaging.
Quality:	Fish Inspection; Quality Control.
Others:	Fish Culture; Marine Pollution.

Working Facilities:

Laboratories:	Chemistry; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Cold Storage; Library.

Serial Publications: Conservación de Productos Marinos y Standards Nos 35001 - 35015

GUINEA-BISSAU 0045

Centro de Investigação Pesqueira Aplicada

Address: Av. Amilcar Cabral, Bissau 102

Tel: 245-212.184
Fax: 245-201.157

Head of Organization Director General, Mrs Maria Luisa Ferreira
Type of Organization Research Institute
Responsible Authority Estudo dos Recursos Halieuticos e Controlo De Qualidade De Pescado

Number of Staff: Scientists: 10
Working Languages: Portuguese; French; Spanish

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Freezing.
Species:	Fish.
Development:	Traditional Fish Products; Traditional Processes; Traditional Packaging; Traditional Equipment.
Quality:	Fish Inspection; Quality Control.
Others:	Biochemistry; Statistics; Training; Fishery Resources; Oceanography; Fishery Biology; Fishing Technology.

Working Facilities:

Laboratories:	Chemistry; Biology; Microbiology; Quality Control.
Others:	Pilot Plant; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
not specified	monthly	15 days	
not specified	monthly	15 days	

HONDURAS 0046

Escuela Agrícola "Luis Landa"

Address: Orilla Carretera Panamericana, Nacaome, Valle

Tel: (504)-81-4307/05

Head of Organization Mr Francisco Avalos
Type of Organization Research Institute; Regional Authority
Responsible Authority Ministerio de Eucation Publica

Number of Staff: Others: 8
Working Languages: Spanish

Major Fields of Interest:

Handling:	Onshore.
Processing:	Salting/Drying; Freezing; Fish Meal.
Species:	Crustaceans; Molluscs; Algae.
Development:	New Fish Products; New Processes; New Packaging; New Equipment.
Quality:	Fish Inspection; Quality Control.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Extension; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Working Facilities:

Laboratories:	Chemistry; Biology; Biochemistry; Microbiology; Quality Control.
Others:	Ice Making Plant; Cold Storage; Library; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Science and Aquaculture Course		3 years	Spanish

INDIA 0047

Central Institute of Fisheries Technology

Address: Willingdon Island, Matsyapuri P.O., Cochin 682029

Tel: (91)-48-466.6845
Fax: (91)-48-466.8212
Email: cift@x400.nicgw.nic.in
Telex: 0885-6440 CIFT
Cable: FISHTECH/MATSYAOUDYOGIKI, COCHIN

Head of Organization Director, Dr Gopakumar Kumara Panicker
Type of Organization Research Institute; National Authority
Responsible Authority Indian Council of Agricultural Research, New Delhi

Number of Staff: Scientists: 98 Others: 377
Working Languages: English, Hindi

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration.
Processing:	Drying; Salting; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal; Fish Waste Utilization; Live Fish Transportation; Agar; Chitin/Chitosan; Fish Oil; Fish Proteins; Fish Silage; Marinades; Surimi.
Species:	Crustaceans; Molluscs; Cephalopods; Teleosteans; Elasmobranchs.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; New Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance; Storage and Shelf Life; Fish Microbiology.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Marine Pollution; Fishing Craft; Fishing Gear; Engineering and Instrumentation.

Present Programmes: Research and Extension Education in the Field of Fishery Technology including Fishing Craft, Fishing Gear, Fish Processing, Biochemistry, Microbiology, Engineering, Electronics and Statistics.

Working Facilities:

Laboratories:	Processing; Engineering; Biochemistry; Microbiology; Quality Control; Instrumentation; Fishing Craft; Fishing Gear.
Others:	Pilot Plant; Cold Storage; Library; Research Vessel; Machine Shop.

Training Programme:

Title	Duration	Language
Topics Related to Fishing and Fish Processing	3-30 days	English

Serial Publications: Fish Technology Newsletter (Quarterly); Research Highlights (Annual); Special Bulletins

INDIA 0048

College of Fisheries

Address: A/P: Shirgaon, Ratnagiri, Maharashtra State 415629

Tel: (91)-02352-22.341
Fax: (91)-02352-22.341

Head of Organization Associate Dean, Dr Prakash Chandrashekhar Raje
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Vice Chancellor, Konkan Agricultural University.

Number of Staff: Scientists: 20 Others: 2
Working Languages: English; Hindi; Marathi

Major Fields of Interest:

Handling:	Onboard; Onshore; Live Fish Transport and Holding.
Processing:	Drying; Salting/Drying; Fermentation; Canning; Freezing; Minced Products; Agar and Alginates; Chitin.
Species:	Crustaceans; Molluscs; Cephalopods; Algae; Fresh Water Carps; Perches and Mullets.
Development:	Traditional and New Fish Products; New and Traditional Processes; Traditional and New Packaging; New Equipment; Shelf Life; Snack Foods.
Quality:	Quality Control.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Development of New Products from Low-priced Fish, Crustaceans, Molluscs and algae.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Microbiology.Test Kitchen; Library; Research Vessel; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Products	quarterly	8 days	English/Marathi

Others:

Title	Duration	Language
Fish Quality Control	2 days	Marathi

INDIA 0049

College of Fisheries, Kerala Agricultural University

Address: Panangad P.O., Cochin 682 506

Tel: (91)-484-805.337

Head of Organization Dean, Dr Joseph Sebastian Moolail
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Vice Chancellor, Kerala Agricultural University

Number of Staff: Scientists: 6
Working Languages: English

Major Fields of Interest:

Handling:	Onshore; Depuration.
Processing:	Drying; Salting/Drying; Canning; Freezing; Minced Products.
Species:	Crustaceans; Molluscs; Cephalopods.
Development:	Traditional Fish Products; New Processes; New Equipment.
Quality:	Quality Control.
Others:	Biochemistry; Nutrition; Statistics; Economics; Extension; Fishery Biology; Fishing Technology; Fish Culture.

Present Programmes: Product Development of Bivalve Meat. Feed Formulation For Prawns.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control; Aquaculture.
Others:	Library; Research Vessel; Fish Culture Ponds; Hatchery.

Regular Training Programmes:

Title	Frequency	Duration	Language
Bachelor of Fishery Science, BFSc	yearly	4 years	English
Master of Fishery Science, MFSc	yearly	2 years	English

Others:

Title	Duration	Language
Various Training Programmes	short-term	English

INDIA 0050

College of Fisheries: Assam Agricultural University.

Address: Raha 782 103

Head of Organization Officer on Special Duty, Dr Omeo Kumar Dutta
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Vice Chancellor, Assam Agricultural University

Number of Staff: Scientists: 2 Others: 2
Working Languages: Assamese; English

Major Fields of Interest:
- Processing: Fermentation.
- Development: Traditional Fish Products; Traditional Processes.
- Quality: Fish Inspection.
- Others: Consultation; Fish Culture.

Present Programmes: Development of Traditional Fish Fermentation Technology.

Working Facilities:
- Laboratories: Biochemistry.
- Others: Library; Fish Culture Ponds.

INDIA 0051

Fisheries College and Research Institute, Tamil Nadu Veterinary and Animal Sciences University

Address: Tuticorin 628 008 **Tel:** (91)-461-21.554 **Fax:** (91)-461-22.154

Head of Organization Dean, Dr K. Venkataramanujam

Type of Organization Univ. Dept./Higher Educ.

Responsible Authority The Registrar, Tamil Nadu Veterinary and Animal Sciences; University, Madras

Number of Staff: Scientists: 49 Others: 57

Working Languages: English; Tamil

Major Fields of Interest:

Handling: Onshore; Depuration; Transport of Fish Seed and Breeders.

Processing: Solar Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal; Value-added Fish Products and Byproducts; Agar; Chitin; Chitosan; Algin.

Species: Finfish; Crustaceans; Molluscs; Cephalopods.

Development: Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment; Fish Pickles; Fish Biscuits; Fish Noodles; Fish Puppads.

Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurance.

Others: Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution; Marine Biology; Limnology; Fisheries Engineering; Pathology; Parasitology; Genetics; Fishery Microbiology; Biotechnology; Sewage Fed Fish Culture; Pollution Monitoring Studies.

Present Programmes: Teaching Programmes in BFSc and MFSc. Development of New Fishery Products/Byproducts. Fishery Microbiology. Fish Nutrition and Quality Control. Extension/Training Programmes for Educated Unemployed Rural Youth, Fisherwomen and Entrepreneurs in the Development of Value-added New Fisheries Products of commerce and Export Value.

Working Facilities:

Laboratories: Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control; Biotechnology.

Others: Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Research Vessel; Fish Culture Ponds; Hatchery; Glass House Aquarium; Ornamental Fish Culture; Fish Feed Fomulation; Reservoir; Marine Workshop; Computer.

Regular Training Programmes: Title	**Frequency**	**Duration**	**Language**
Hygienic Handling of Fish	2 per month	1 month	Tamil/English
Value-added Fishery Products and By-products	5 per month	2 days	Tamil/English
Others:			
Composite Fish Culture		5 days	Tamil/English
Shrimp Farming		5 days	Tamil/English
Oranamental Fish Culture		5 days	Tamil/English
Fresh Water Prawn Culture		5 days	Tamil/English
Integrated Fish Farming		5 days	Tamil/English
Culture of Fish Food Organisms		5 days	Tamil/English
Fish Seed Production		5 days	Tamil/English

INDIA 0052

Marine Products Export Development Authority, MPEDA

Address: Cochin 682 036, Kerala

Tel: (91)-484-310.828/311.803
Fax: (91)-484-313.361/314.467
Telex: 0885 6288/6648

Head of Organization: Chairman, Mr K.B. Pillai
Type of Organization: Government Dept.; National Authority; Fish Export Promotion Organization
Responsible Authority: Ministry of Commerce, Govt. of India, New Delhi

Number of Staff: Scientists: 70 Others: 354
Working Languages: English; Hindi

Major Fields of Interest:

- Handling: Onboard; Onshore.
- Quality: Seafood Inspection; Seafood Quality Control; Fish Quality Control/Assurance.
- Others: Statistics; Training; Extension; Fish Culture; Marine Pollution; Fishery Development; Market Research; Market Promotion; Environment; Trade Information; Deep Sea Fishing; Aquaculture Projects.

Working Facilities:

- Laboratories: Chemistry; Microbiology; Quality Control; Pollution Control.
- Others: Cold Storage; Library; Aquaculture Demonstration.

Serial Publications: Prime Price Indicator of Marine Products(PRIME)
Seafood Newsletter
Indian Seafoods
Marine Products Export Review
Statistics of Marine Products

IRAN 0053

Iranian fisheries Research and Training Organization

Address: 43 Vahid Dastjerdi (Zafar) Ave., Tehran 19167

Tel: (98)-21-227.4915/227.4916
Fax: (98)-21-893.700
Telex: 213330
Cable: RETR IR
Mail to: P.O. Box 1415-6116

Head of Organization President, Dr G.H. Amini
Type of Organization Research Institute; Government Dept.
Responsible Authority Fishery Authority (SHILAT) of Iran

Number of Staff: Scientists: 15 Others: 30
Working Languages: Farsi; English

Major Fields of Interest:

Handling:	Onboard; Onshore
Processing:	Drying; Salting/Drying; Smoking; Canning; Freezing.
Species:	Crustaceans; Cephalopods; Algae.
Development:	New Fish Products; Traditional and New Processes; New Equipment.
Quality:	Fish Inspection; Quality Control.
Others:	Biochemistry; Statistics; Consultation; Training; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Preparation of Unusual Fish Products (including those not to be consumed under Islamic Law).
Added Value Fish Products.
Improve Control of Quality

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Cold Storage; Library; Research Vessel; Fish Culture Ponds.

Other Training:

Title	Duration	Language
Quality Control		Farsi/English
Product Processing		Farsi/English

Serial Publications: Iranian Fisheries Bulletin
IFRTO. News Letter
IFRTO Monthly News

IRELAND 0054

Aquaculture Development Centre, University College Cork

Address: Lee Maltings, Prospect Row, Cork

Tel: (353)-21-904.050
Fax: (353)-21-277.922
Email: nadc@ucc.ie

Head of Organization Manager, Dr Richard FitzGerald
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Prof. Alan Myers, Acting Head, Dept. of Zoology

Number of Staff: Scientists: 8 Others: 4
Working Languages: English

Major Fields of Interest:

Handling:	Depuration.
Processing:	Smoking.
Species:	Fish; Crustaceans; Molluscs; Cephalopods.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Equipment.
Quality:	Quality Control; HACCP.
Others:	Nutrition; Statistics; Consultation; Training; Extension; Fishery Resources; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Aquaculture; Genetics; Species Selection and Evaluation; Health and Disease Control; Immuno-diagnostics; Image Processing and Analysis; Database Design.

Other Working Facilities: Cold Storage; Taste Panel Room; Library; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Higher Diploma in Aquaculture	yearly	1 year	English
Masters in Aquaculture	yearly	1-2 years	English

IRELAND 0055

Donogh O'Malley Regional Technical College

Address: Port Rd., Letterkenny, Co. Donegal

Tel: (353)-74-24.888
Email: jhines@ns.rtc-Letterkenny.ie

Head of Organization Head, School of Science, Dr John Hines
Type of Organization Regional Authority
Responsible Authority Department of Education

Number of Staff: Scientists: 23 Others: 5
Working Languages: English

Major Fields of Interest:

Processing:	Smoking; Canning; Freezing; Fish Meal.
Species:	Molluscs; Algae.
Development:	New Fish Products; New Processes.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Training; Fishery Biology; Fish Culture; Marine Pollution.

Present Programmes: Fatty Acid Analysis of Farmed Salmon Offal.
Quality Assurance of Wild Fish.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
National Certificate in Aquaculture	yearly	1 year (under review)	English

IRELAND 0056

School of Food Science and Environmental Health, Dublin Institute of Technology

Address: Cathal Brugha St., Dublin 1

Tel: (353)-1-402.4356
Fax: (353)-1-402.4495
Email: mproctor@dit.ie

Head of Organization Dr Marlene R.M. Proctor,
Head of School of Food Science and Environmental Health.
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Dublin Institute of Technology

Number of Staff: Scientists: 4 Others: 2
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore; Capture and Harvesting.
Processing:	Chilling-Underlying Biochemistry.
Development:	New Packaging (Modified Atmospheric Packaging)-Sous vide Processing.
Quality:	Fish Inspection; Fish Quality Control/Assurance; Application of HACCP.
Others:	Biochemistry; Fish Culture; Development of Education Programmes.

Working Facilities:

Laboratories:	Processing; Biochemistry.
Others:	Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Wet Laboratory; Links with Industry.

Other Training Programmes:

Title	Duration	Language
Training Programmes	as required	English

Serial Publications: Research Results are Disseminated through Publication in Scientific Journals.

IRELAND 0057

Tralee Regional Technical College

Address: Clash, Tralee, Co. Kerry

Tel: (353)-66-24.666
Fax: (353)-66-25.711

Head of Organization Director, Dr Sean McBride
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Autonomous

Number of Staff: Scientists: 5
Working Languages: English

Major Fields of Interest:

Handling:	Onshore.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
Species:	Crustaceans; Algae.
Development:	Seaweed Liquid Extracts; Composts; Cosmetics.
Others:	Consultation; Training; Fish Culture; Marine Pollution.

Working Facilities:

Laboratories:	Chemistry; Biology; Engineering; Biochemistry; Microbiology.
Others:	Test Kitchen; Taste Panel Room; Library; Machine Shop.

Regular Training Programmes:

Title	Frequency	Duration	Language
Regular Training Programme			English

ISRAEL 0058

Fishery Products Laboratory, Kimron Veterinary Institute

Address: Beit Dagan 50250

Tel: (972)-3-968.1724/5
Fax: (972)-3-968-1753
Telex: VSAH-381472
Mail to: PO Box 12, Beit Dagan

Head of Organization Director, Dr G. Alexander Gelman
Type of Organization Research Institute; Government Dept.
Responsible Authority Kimron Veterinary Institute

Number of Staff: Scientists: 4 Others: 1
Working Languages: Hebrew; English; Russian; French; Spanish

Major Fields of Interest:

- **Processing:** Salting/Drying; Fermentation; Smoking; Canning; Minced Products; Fish Storage; Shelf-life; Chilling; Fish Proteins; Fish Waste Utilization; Snack Food.
- **Species:** Fish; Crustaceans; Molluscs; Cephalopods; Jelly Fish; Algae.
- **Development:** Traditional and New Fish Products; Traditional and New Processes.
- **Quality:** Quality Control; Fish Quality Control/Assurance.
- **Others:** Biochemistry.

Present Programmes: Development of Fish Products for Human Consumption.

Working Facilities:

- **Laboratories:** Processing; Biochemistry; Quality Control; Parasitology.
- **Others:** Pilot Plant; Cold Storage; Taste Panel Room; Library.

ITALY 0059

Istituto Centrale per la Ricerca Scientifica e Tecnologica Applicata al Mare (ICRAM)

Address: Via L. Respighi, 5, Rome 00197

Tel: (39)-6-808.8712
Fax: (39)-6-808.8326

Head of Organization President, Guiseppe Notarbartolo di Sciara
Type of Organization Research Institute
Responsible Authority Ministry of Environment

Number of Staff: Scientists: 3 Others: 1
Working Languages: English; French; Italian

Major Fields of Interest:
Handling: Onboard; Depuration.
Others: Nutrition; Statistics; Economics; Consultation; Training; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Use of By-catch for Alternative Fish Products.

Working Facilities:
Laboratories: Chemistry; Biology.
Others: Library.

Other Training Programmes:

Title	Duration	Language
As required	1 week	Italian

Serial Publications: Quaderni ICRAM

ITALY 0060

IMC - International Marine Centre

Address: Lungomare E. D'Arborea, 22, Torregrande-Oristano 09072
Tel: (39)-783-22.027/032
Fax: (39)-783-22.002
Email: Vallerga@server.area.ge.cnr.it

Head of Organization Scientific Director, Dr Vallerga
Type of Organization Int. Research and Training Centre
Responsible Authority Members: M.A.R.E. S.a.s.; National Research Council of Italy; Marine Biological Laboratory of Woods Hole Italo-Japanese Society for Biology, Oristano Municipality, University of Nantes (France), Academy of Sciences of Russia.

Number of Staff: Scientists: 20 Others: 5
Working Languages: English

Major Fields of Interest:

Species: Fish; Eel; Mugilidae; Sparidae.
Development: Traditional and New Fish Products; Agar; Alginate; Fish Vaccines.
Others: Biochemistry; Fishery Resources; Oceanography; Fishery Biology; Fish Culture; Marine Pollution; Molecular Biology; Fish Sensory systems; Oceanography; Air-Sea and Air-Land Interaction; Aerosol; Acid Rain; Eutrophication; Transnational Training.

Present Programmes: STRIDE Study-Protection and Development of Bio-resources of the Mediterranean; Biology of Eel; Adaptation of Fish Sensory Systems to the Environment; Study of Spectral Sensitivity and Visual Adaptation in the Eel Retina; Relation Between Neural Retina and Photic Environment in Coastal Species; Physical Characterization of Coastal Waters and Lagoons; TACOS-Tirso Atmosphere-Coast of Oristano System IV Framework Programme; FAR-Fisheries in Aquaculture Research; Human Capital and Mobility; Environment (EUMAC-Eutrophication and Macrophytes); COMETT.

Working Facilities:

Laboratories: Chemistry; Biology; Biochemistry; Microbiology; Molecular Biology; Neurophysiology; Genetics; Physiology; Neurobiology.
Others: Pilot Plant; Library; Research Vessel; Fish Culture Ponds; Aquarium.

Regular Training Programmes:

Title	Frequency	Duration	Language
Advanced Summer Courses	yearly	2-3 weeks	English

Serial Publications: IMC News; Scientific Publication of Research Results

ITALY 0061

Istituto Nazionale della Nutrizione

Address: Via Ardeatina N. 546, Roma 00178
Tel: 39-6-519-1132

Head of Organization Chairman, Professor Giuseppe Rotilio
Type of Organization Research Institute
Responsible Authority Ministero delle Risorse Agricole, Alimentari e Forestali

Number of Staff: Scientists: 4 Others: 4
Working Languages: English

Major Fields of Interest:
- **Processing:** Freeezing; Nutritional Quality.
- **Species:** Fish.
- **Development:** Traditional and New Fish Products; Nutritional Quality.

ITALY 0062

Stazione Sperimentale per l'Industria delle Conserve Alimentari

Address: V. le F. Tanara 31/A, Parma 43100
Tel: (39)-5-217.951
Fax: (39)-5-2177.1829
Telex: 532 259 SSICA

Head of Organization Director, Prof. Gianfranco Dall'Aglio
Type of Organization Research Institute
Responsible Authority Autonomous Administration under Supervision of Ministry of Industry.

Number of Staff: Scientists: 2 Others: 4
Working Languages: Italian

Major Fields of Interest:

Handling:	Onshore.
Processing:	Salting/Drying; Canning; Minced Products.
Species:	Molluscs; Cephalopods.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment.
Quality:	Quality Control.
Others:	Consultation; Training; Extension.

Present Programmes: Chill Storage of Fish and Fish Products by Modified Atmospheres.
New Tuna Products e.g. Cooked Tuna Ham.

Working Facilities:

Laboratories:	Chemistry; Processing; Microbiology; Quality Control.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

Other Training Programmes:

Title	Duration	Language
Individual Training for Technicians from Industry		Italian

KENYA 0063

Kenya Marine and Fisheries Research Institute (KMFRI)

Address: Mkomani Road, English Point, Mombasa

Tel: (254)-11-475.151/475.157
Email: main.recoscix.kmfri.ke
Mail to: P.O.Box 81651, Mombasa

Head of Organization Director, Dr. Ezekiel Okemwa
Type of Organization Research Institute
Responsible Authority The Ministry of Research, Technical Training Technology

Number of Staff: Scientists: 5 Others: 6
Working Languages: English

Major Fields of Interest:

Handling:	Onshore.
Processing:	Smoking; Minced Products.
Species:	Fish.
Development:	New Fish products; New Equipment.
Quality:	Fish Inspection; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition.

Present Programmes: Nile Perch Utilization.
FAO Co-operative Project with KMFRI.

Working Facilities:

Laboratories:	Processing; Microbiology.
Others:	Library.

MALAYSIA 0064

Faculty of Fisheries and Marine Science

Address: University Pertanian Malaysia, Serdang 43400

Tel: (60)-3-948.6101ext.2501
Fax: (60)-3-948.2697
Telex: UNIPERMA 37454
Cable: UNIPERTAMA SUNGAI BESI

Head of Organization: Assoc. Prof., Dr Hj. Mohd. Zaki Mohd. Said
Type of Organization: Univ. Dept./Higher Educ.
Responsible Authority: Ministry of Education

Number of Staff: Scientists: 45 Others: 119
Working Languages: Malay; English

Major Fields of Interest:

Handling:	Onboard; Onshore; Live Fish Transport.
Processing:	Freezing; Minced Products; Fish Meal; Fish Oil.
Species:	Fish-Fresh Water and Marine; Crustaceans; Molluscs; Cephalopods.
Development:	New Equipment.
Others:	Biochemistry; Nutrition; Statistics; Consultation; Training; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Fishing Technology; Fish Culture; Fish Health Management.

Working Facilities:

Laboratories:	Chemistry; Biology; Biochemistry; Microbiology.
Others:	Research Vessel; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Diploma in Fisheries	yearly	3 years	Malay/English
BSc in Fisheries (Marine Fisheries)	yearly	4 years	Malay/English
BSc in Fisheries (Aquaculture)	yearly	4 years	Malay/English
BSc (Marine Science)	yearly	4 years	Malay/English
MSc in Aquaculture	yearly	2 years	Malay/English
MSc in Aquatic Resource Management	yearly	2 years	Malay/English
MS in Tropical Health	yearly	2 years	Malay/English
PhD	yearly	3 years	Malay/English

Others:

Title	Duration	Language
3rd Country Training Programme on General Freshwater Aquaculture (sponsored by JICA)	2 months	English
Short Courses	1-4 weeks	Malay/English

MALAYSIA 0065

Faculty of Food Science and Biotechnology, Universiti Pertanian Malaysia

Address: UPM, Serdang, Selangor 43400
Tel: (60)-3-948.6101 ext.3412
Fax: (60)-3-942.3552

Head of Organization Mohamad Mahyuddin Mohd Dahan
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Vice Chancellor, Universiti Pertanian Malaysia

Number of Staff: Scientists: 4 Others: 4
Working Languages: English; Malay

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration; Live Fish Transport.
Processing:	Smoking; Freezing; Filleting.
Species:	Finfish, Marine and Freshwater; Crustaceans; Molluscs; Cephalopods.
Development:	Traditional and New Fish Products; Traditional and New Processes; New Packaging; Convenience Food.
Quality:	Quality Control (Sensory and Chemical Indices); Fish Control/Assurance; Quality Improvement.
Others:	Biochemistry; Consultation; Training.

Present Programmes: Induction of Anesthesia by Hypothermia in Prawns.
Development of Mince-Based Products.
Breaded Products.
Hydrolysate.
Quality Deterioration and Improvement in Fish and Prawns.

Working Facilities:

Laboratories:	Processing; Engineering; Biochemistry; Microbiology; Sensory.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Library.

Other Training Programmes:

Title	Duration	Language
Quality Control of Fish Products	2-4 days	Malay/English
Processing of Minced Products and Other Fish-based Products	2-5 Days	Malay/English

MALAYSIA 0066

Food Technology Research Centre, Malaysian Agricultural Research and Development Institute (MARDI)

Address: GPO Box 12301, General Post Office, Kuala Lumpur 50774
Tel: (60)-3-943.7111
Fax: (60)-3-942.2906
Email: noc@mardi.my
Telex: MA37115 MARDI

Head of Organization: Director, Mr Adinan Bin Husin
Type of Organization: Research Institute; Government Dept.; National Authority
Responsible Authority: MARDI, Ministry of Agriculture

Number of Staff: Scientists: 6 Others: 32
Working Languages: Malay; English

Major Fields of Interest:

- Handling: Onboard; Onshore; Depuration; Live Fish and Prawn Transport.
- Processing: Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products.
- Species: Crustaceans; Molluscs; Cephalopods.
- Development: Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; New Equipment.
- Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurance.
- Others: Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension.

Present Programmes: R and D on Fish Processing and Handling; Product Development; Transportation; Postharvest.

Working Facilities:

- Laboratories: Chemistry; Processing; Microbiology; Quality Control.
- Others: Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
Processing of Fish Ball and Fish Cake	quarterly	3-4 days	Malay
Surimi	quarterly	3-4 days	Malay
General Courses on Quality Control	twice yearly	3-4 days	Malay
Low Acid Canned Foods (with USFDA)	every 2 years	1 week	English

Others:

Title	Duration	Language
Demonstrations on Processing of Fishery Products	as required	Malay/English
Other Courses	as required	Malay/English
Attachments	up to 1 month	Malay/English

Serial Publications: MARDI Research Bulletin (twice yearly); Food Technology Bulletin(monthly); Phamplets on Food Technology (occasional)

MAURITANIA, ISLAMIC REPUBLIC OF 0067

Centre National de Recherches Océanographiques et des Pêches (CNRO)

Address: Cansado, BP22, Nouadhibou

Tel: (222)-2-45.124
Mail to: CNROP BP22, Nouadhibou

Head of Organization General Director, Ba Moctar
Type of Organization Research Centre
Responsible Authority Ministère des Pêches et de l'Economie Maritime (MPEM)

Working Languages: French

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Drying; Salting/drying; Fermentation; Smoking; Freezing; Products.
Species:	Crustaceans; Molluscs.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Economics; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Fishing Technology; Marine Pollution.

Working Facilities:

Laboratories:	Chemistry; Biology; Microbiology; Quality Control.
Others:	Ice Making Plant; Test Kitchen; Library; Research Vessel.

MAURITANIA, ISLAMIC REPUBLIC OF 0068

Superior Scientific Institute

Address: Novakchott 5026

Tel: 5598MTN
Fax: (222)-2-53.997
Mail to: PO Box 5026, Nouakchott

Head of Organization Director, Mr Ouldhamed Ahmedou
Type of Organization Research Institute; Univ. Dept./Higher Educ.
Responsible Authority Ministry of Education

Number of Staff: Scientists: 6 Others: 1
Working Languages: Arabic; French

Major Fields of Interest:
- **Processing:** Drying; Salting/Drying; Fermentation.
- **Species:** Molluscs.
- **Others:** Biochemistry; Fishery Biology; Marine Pollution.

Present Programmes: Studies on Ecobiology of Coastal Fish Species and their Traditional Processing Methods.

Working Facilities:
- **Laboratories:** Biology; Biochemistry.
- **Others:** Cold Storage.

Regular Training Programmes:

Title	Frequency	Duration	Language
Eco-biology of Various Coastal Fish Species (*Soleidae, Mullidae, Mugalidae and Rhinobathidae*)			Arabic/French

Others:

Title	Duration	Language
Eco-biological Studies of Other Commercially Important Fish Species		

MEXICO 0069

Centro de Investigaciones Biológicas del Noroeste, S.C.

Address: Km 17, Carretera al Norte, La paz 23000
Tel: (52)-112-53633
Mail to: Apdo. Postal 128, La Paz, B.C.S. C.P.23000

Head of Organization General Director, Dr Lluch Belda Daniel
Type of Organization Research Institute
Responsible Authority SEP-CONACYT

Number of Staff: Scientists: 12
Working Languages: Spanish

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration; Marine Fish Culture.
Processing:	Surimi Production from Marine Fish.
Species:	Fish; Crustaceans; Molluscs.
Development:	Traditional Fish Products; New Processes.
Others:	Biochemistry; Nutrition; Consultation; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fish Culture; Marine Pollution.

Present Programmes: Experimental Surimi Processing.
Fish Culture.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology; Aquaculture.
Others:	Test Kitchen; Library; Research Vessel; Fish Culture Ponds.

MEXICO 0070

Cictus Universidad de Sonora

Address: Rosales Y.N. Heroes 5, Hermosillo 83000

Tel: (52)-91-6212.1995
Fax: (52)-91-6212.3271
Mail to: Apdo Postal 1819, Hermosillo Sonora

Head of Organization Dr Alejandro Castellanos Villegas
Type of Organization Research Institute; Univ. Dept./Higher Educ.
Responsible Authority Rector Jorge Luis Ibarra Mendivil

Number of Staff: Scientists: 8
Working Languages: Spanish; English

Major Fields of Interest:

Handling:	Shrimp Technology.
Species:	Crustaceans; Molluscs; Algae.
Others:	Nutrition; Consultation; Training; Oceanography; Fish Culture; Marine Pollution.

Present Programmes: Shrimp Mariculture Technology.
Shrimp Nutrition.
Oil from Fish.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology.
Others:	Pilot Plant; Library; Fish Culture Ponds; Larval Culture Facilities.

Regular Training Programmes:

Title	Frequency	Duration	Language
MS in Aquaculture (Emphasis on Crustacean Culture)		2 years	Spanish

Others:

Title	Duration	Language
Shrimp Culture (Hyperintensive and Intensive Systems)	1-2 months	Spanish

MEXICO 0071

Dirección General de Acuacultura

Address: Cerrada De Trini 10, Col. Sen Jeronimo Lidice, Mexico D.F, C.P.10200

Tel: (52)-5-683.7022/683.0541
Fax: (52)-5-595.2704

Head of Organization Director General, Engineer Ruben Ocaña Soler
Type of Organization Government Dept.; Federal Government Office
Responsible Authority Secretaria De Medio Ambiente, Recursos Naturales y Pesca. Subsecretaria de Pesca.

Working Languages: Spanish; English

Major Fields of Interest:

Handling: Transportation of Living Organisms.

Species: Crustaceans; Inland and Marine Fishes (Trout, Carp, Red Tilapia, Bass); Molluscs (Oyster, Clams, Abalone, Pearl Oyster; Frogs; Crocodile; Worms.

Development: Aquaculture Parks Infrastructure for High and Controlled Production; Technology and Management of Strategic Species; Aquatic Sustainable Development; Environmental Planning and Management; Use of Natural Resources and Control of Aquaculture Impact Aspects; Financing promotion.

Quality: Fish Inspection; Quality Control in Production and Processes; Program and Training in HACCP.

Others: Nutrition; Statistics; Rural Promotion; Integrated Production Systems and Enterprises; Aquaculture Equipment Design; Institutional Development; Lily Control.

Present Programmes: Aquatic Parks-Design, Construction, Management and Promotion.
Aquatic Health-Taura Prevention and Control, Standards in Health and Water Quality.
Studies for Different Strategical Species.
Training.
Unregulation and Institutional Decentralization.
Fingerling Production.

Working Facilities:

Laboratories: Laboratories in Coordination with Research Institutions and Universities.

Others: Hatcheries for Different Species; Aquaculture Information network and Center of Documentation.

Regular Training Programmes:

Title	Frequency	Duration	Language
Management and Production of Selected Species		Variable	Spanish
Water Sanitation		Variable	Spanish
Nutrition		Variable	Spanish

MEXICO 0072

Instituto Nacional de la Pesca

Address: Chilpancingo 7, Col. Hipódromo Condesa 06100

Tel (52)-5-286.1142/286.1149
Fax: (52)-5-211.1141

Head of Organization Director General, Mr Lemus Juan Luis Cifuentes
Type of Organization Research Institute
Responsible Authority Lic. Esmeralda Negrete Vargas

Number of Staff: Scientists: 389
Working Languages: Spanish

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Drying; Salting/Drying; Smoking; Canning; Freezing; Minced
Products:	Snack Food.
Species:	Crustaceans; Molluscs; Cephalopods; Algae.
Development:	New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional Equipment.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Economics; Consultation; Training; Fishery Resources; Stock Assessment; Oceanography; Fishing Technology; Fish Culture.

Present Programmes: Shrimp; Turtle; Tuna; Shark; Lobster; Marine Mammals; Coastal Fisheries; Sardine; Anchovy.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Microbiology; Quality Control.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Research Vessel.

Serial Publications: Ciencia Pesquera

MOROCCO 0073

Institut Agronomique et Vétérinaire Hassan II

Address: Rabat 6202

Tel: (212)-7-771.758/771.757/771.745
Fax: (212)-7-778.110/775.838
Telex: AGROVET 31873M or 32089M

Head of Organization Director General, Dr M'hamed Sedrati
Type of Organization Research Institute; Univ. Dept./Higher Educ.
Responsible Authority Ministry of Agriculture

Number of Staff: Scientists: 30 Others: 5
Working Languages: French; English; Arabic

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration.
Processing:	Drying; Canning; Salting/Drying; Freezing; Fermentation; Minced Products; Smoking; Fish Meal.
Species:	Crustaceans; Molluscs; Cephalopods; Algae.
Development:	Traditional and New Fish Products; Traditional and New Packaging; Traditional and New Processes; Traditional and New Equipment; Fisheries Economics.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Improvement of Fish Handling; Fundamentals of Fish Spoilage; Application of HACCP Programmes in Fish Quality Assurance; Optimization of Fish Freezing; Optimization of Fish Canning; Fish Silage.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
Degrees in Food Technology/Fisheries		6 years	French
Laboratory Technician		2 years	French
Doctor of Veterinary Medicine		6 years	French

Others:

Title	Duration	Language
Fish Processing Technology	2-12 weeks	*
Fish Quality Assurance	2-12 weeks	

*French/English/Arabic

MOROCCO 0074

Scientific Institute for Marine Fisheries (I.S.P.M.)

Address: 2 Rue de Tiznit, Casablanca

Tel: (212)-2-222.090/268.192/276.088
Fax: (212)-2-266.967

Head of Organization Mr Abdelatif Berraho
Type of Organization Research Institute
Responsible Authority Fisheries Administration

Working Languages: French; Arabic; English

Major Fields of Interest:

Development: Value-added Fish Products.

Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurance; Hygiene of Fishing Ports.

Others: Biochemistry; Nutrition; Statistics; Economics; Consultation; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution; Studies, Algae; Studies, Coral; Studies, Shells; Fishing Gear Technology; Ichthyology; Plantonology; Oceanograghy; Socio Economics of Fish; Mapping of Fishing Ground; Water Quality.

Working Facilities:

Laboratories: Chemistry; Biology; Biochemistry; Microbiology; Quality Control; Oceanography; Acoustics; Fish and Plankton Studies.

Others: Library; Research Vessel; Aquarium; Computers; Radio Communications; Sub Fisheries Stations in Major Fishing Ports.

Serial Publications: Bulletin de l'Institut
Travaux et Documents: (exchange possibilities)
Notes d'Information

MOZAMBIQUE 0075

Instituto de Desenvolvimento da Pesca de Pequena Escala (Small Scale Fisheries Development Institute)

Address: Av. Marginal, Parcela 141/8, Maputo C.P.2473

Tel: (258)-1-490.604/490.807
Fax: (258)-1-292.201

Head of Organization Manuel Luís Gonçalves
Type of Organization Development Institute
Responsible Authority Secretariat of State for Fisheries

Major Fields of Interest:

Others: Training; Extension; Fishery Resources; Fishing Technology; Artisanal/Small-scale Fisheries Development; Policy and Planning; Data Collection; Socio-economic Studies; Infrastructure Support; Community Development.

Present Programmes:

By-catch Collection and Processing.
Open Sea Experimental Fishing.
Experimental Lobster Fishing.
Area-specific Development Programmes.
Provincial Frame Surveys.
Socio-economic Studies.
Development/Project Planning.
Experimental Fishing Vessels.
Field Offices.

Regular Training Programmes:

Title	Frequency	Duration	Language
In-service Training for Counterpart Staff			
Project Sponsored Training on Small Enterprise Management			
Engine Maintenance			
Fish Handling			

Serial Publications: IDPPE Annual Report

NEW ZEALAND 0076

New Zealand Fishing Industry Board

Address: 74 Cambridge Terrace, Wellington

Tel: (64)-4-385.4005
Fax: (64)-4-385.2727
Email: andrew@fib.co.nz
Mail to: Private Bag 24-901, Wellington

Head of Organization Chief Executive, Mr Ray Dobson
Type of Organization Statutory body
Responsible Authority The New Zealand Seafood Industry

Number of Staff: Scientists: 5 Others: 20
Working Languages: English

Major Fields of Interest:

Species: Finfish; Crustaceans; Molluscs; Cephalopods.
Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurances.
Others: Statistics; Economics; Training; Fishery Resources; Stock Assessment; Management Information.

Working Facilities: Library.

Other Training Programmes:

Title	Duration	Language
Fish Handling	1 day	English
Tuna Handling	1 day	English
National Certificate in Seafood Retailing	40 hours	English

Serial Publications: Seafood New Zealand (Monthly)
Economic Review of the New Zealand Seafood Industry (Annual)

NIGERIA 0077

Department of Fisheries and Wildlife, The Federal University of Technology

Address: Akure

Tel: (234)-34-200.090
Mail to: P.M.B. 704, Akure

Head of Organization Professor Albert Ilemobade
Type of Organization Research Institute
Responsible Authority The National Universities Commission

Number of Staff: Scientists: 8 Others: 4
Working Languages: English

Major Fields of Interest:

- **Processing:** Drying; Salting/Drying; Fermentation; Smoking; Freezing; Fish meal; Fish Silage.
- **Development:** Traditional and New fish Products; Traditional Equipment.
- **Others:** Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Fish Culture.

Present Programmes: B Tech (Fisheries).
M Tech and PhD (Fisheries and Aquaculture).

Working Facilities:

- **Laboratories:** Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control.
- **Others:** Ice Making Plant; Library; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
B Tech	on-going	5 years	English
M Tech	on-going	18 months	English
PhD	on-going	3 years	English

NIGERIA 0078

Federal College of Fisheries and Marine Technology

Address: Victoria Island, Lagos
Mail to: Wilmot Point Road, Victoria Island, PMB 80063, Lagos

Head of Organization Provost, Mr Akinade Akanji Olaniawo
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Federal Ministry of Agriculture, Nigeria

Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Drying; Salting/Drying; Smoking; Canning; Freezing; Fish Meal.
Species:	Crustaceans; Molluscs; Cephalopods.
Development:	New Fish Products; New Processes; New Packaging; Traditional Equipment.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Economics; Consultation; Training; Oceanography; Fishery Biology; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: National Diploma in Fisheries (ND).
Higher National Diploma (HND).

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Engineering; Microbiology.
Others:	Pilot Plant; Cold Storage; Library; Fish Culture Ponds; Machine Tool Workshop; Navigational Mock Bridge.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fisheries Technology*	yearly	2 years	English
Marine Engineering*	yearly	2 years	English
Nautical Science*	yearly	2 years	English
Fisheries Technology**	yearly	2 years	English

*National Diploma (ND)
**Higher National Diploma

Serial Publications: "FISMAT" - A Newsletter of the Federal College of Fisheries and Marine Technology (FCFMT)

NIGERIA 0079

Federal Department of Fisheries, Fish Inspection and Quality Control Branch

Address: Ahmadu Bello Way, Victoria Island, Lagos
Mail to: P.M.B.12529, Lagos

Head of Organization Mr Patrick Afamefuna Taggert
Type of Organization Government Dept.
Responsible Authority Director, Federal Department of Fisheries

Working Languages: English

Major Fields of Interest:
- **Handling:** Onboard; Onshore.
- **Processing:** Drying; Salting/Drying; Smoking; Freezing.
- **Species:** Crustaceans; Molluscs; Cephalopods.
- **Quality:** Fish Inspection; Fish Quality Control/Assurance.

Present Programmes: Inspection of Fish and Fishery Establishments.
Inspection and Certification of Fishing Vessels.

Working Facilities:
- **Laboratories:** Processing; Biochemistry; Microbiology.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Inspectors Course	twice yearly	14 days	English
Fish Handling Course for Handlers	twice yearly	7 days	English

Others:

Title	Duration	Language
Fish Inspection and Analysis (Attachment programme to National Fish Inspection Agencies)	30-60 days	English

NIGERIA 0080

Nigerian Institute for Oceanography and Marine Research

Address: 3 Wilmot Point Road, Bar Beach,, Victoria Island, Lagos

Tel: (234)-1-261.7530; 613.827/903; 617.385/528/535/540; 618.521
Fax: (234)-1-619.517
Cable: OCEANOGRAF
Mail to: Victoria Island, PMB 12729, Lagos

Head of Organization Director, Mr John G. Tobor
Type of Organization Research Institute
Responsible Authority Federal Ministry of Agriculture

Working Languages: English

Major Fields of Interest:

Handling:	Onshore.
Processing:	Drying; Canning; Minced Products; Smoking; Fish Meal; Chilling; Fish Protein Concentrate; Fish Silage.
Species:	Fish (Skipjack and Yellowfin Tuna, Sardinella and Ethmalosa spp.); Crustaceans.
Development:	New Fish Products; New Fish Packaging; New Processes; New Equipment; Fish Waste Utilization; Snack Fish Food; Shelf-Life Studies.
Quality:	Quality Control.
Others:	Biochemistry; Nutrition; Statistics; Economics; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishing Technology; Fish Culture; Marine Pollution; Training at Post Graduate Level.

Present Programmes: Post Harvest Technology - Utilization of Shrimp By-catch.
Improved Smoking Technology.
Icing.
Pilot Production of Fish and Fishery Products.
Quality Control.

Working Facilities:

Laboratories:	Chemistry; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Library; Research Vessel; Machine Shop; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Farmers' Workshop	3 times/year	2 weeks	English

Others:

Title	Duration	Language
Workshop on Fish Handling and Processing	4 days	English

NIGERIA 0081

University of Benin

Address: Ugbowo, Benin City PMB 1154

Tel: (234)-52-200.250/289 ext. 2960
Telex: 41365

Head of Organization Vice-Chancellor, Professor Andrew Onokerhoraye
Type of Organization Government Dept.
Responsible Authority National Universities Commission (NUC)

Number of Staff: Scientists: 3
Working Languages: English

Major Fields of Interest:

Processing:	Drying; Salting; Smoking; Minced Products; Fish Meal.
Development:	Traditional Fish Products; Traditional and New processes; Traditional Packaging.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Fishing Technology.

Present Programmes: Processing.
Storage Stability.

Working Facilities:

Laboratories:	Chemistry; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Fish Culture Ponds.

NIGERIA 0082

University of Nigeria

Address: Nasukka, Enugu State

Tel: (234)-Nasukka-51.496
Telex: NSUKKA 771911

Head of Organization Professor Udeala
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Federal Government of Nigeria

Number of Staff: Scientists: 4 Others: 3
Working Languages: English

Major Fields of Interest:

Processing: Drying; Salting/Drying; Smoking; Freezing.
Development: Traditional and New Fish Products; Traditional and New Packaging; Tradition and New Processes; Traditional and New Equipment.
Quality: Quality Control/Assurance.

Present Programmes: Processing; Preservation; Evaluation;
Quality Control of Fish and Fish Products;
Processing; Microbiology; Quality Control; Cold Storage.

Regular Training Programmes:

Title	Frequency	Duration	Language
BSc in Food Science	yearly	5 years	English

Serial Publications: FAO Proceedings on Cooperative Network on Fish Technology

NORWAY 0083

Norwegian Herring Oil and Meal Industry Research Institute

Address: Kjerreidviken 16, Fyllingsdalen 5033

Tel: (47)-55-501.200
Fax: (47)-55.501.299

Head of Organization Managing Director, Dr Snorre Tilseth
Type of Organization Research Institute
Responsible Authority Executive Board

Number of Staff: Scientists: 25 Others: 30
Working Languages: Norwegian

Major Fields of Interest:

Handling:	Onboard; Onshore; Bulk Handling and Storage.
Processing:	Drying; Minced Products; Fish Meal; Fish Oil, Refining; Fish Feed.
Development:	Traditional and New Fish Products; Traditional and New Processes.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Consultation; Stock Assessment; Fish Culture.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Cold Storage; Taste Panel Room; Library; Fish Culture Ponds.

NORWAY 0084

The Norwegian Institute of Fisheries and Aquaculture Ltd.

Address: Breivika (University Campus), Tromsoe

Tel: (47)-776-29.000
Fax: (47)-776-29.100
Mail to: PO Box 2511, Tromsoe N-9002

Head of Organization Director General, Mr Ola R Valvaag, M Ba
Type of Organization Scientic Research Institute
Responsible Authority Board of Institute

Number of Staff: Scientists: 70 Others: 50
Working Languages: Norwegian; English

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration; Bulk Handling and Storage; Capture and Raising of Wild Fish; Live Fish Transport/Holding/Storage.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Freezing; Minced Products; Chilling; Chitin/Chitosan; Fish leather; Fish Oil; Marine Mammal Oil; Fish Proteins; Fish Silage; Irradiation; Surimi; Fat Measuring on Live Fish
Species:	Fresh Water Fish and Organisms; Marine Fish and Organisma including Marine Mammals.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Equipment; Fish Waste Utilization.
Quality:	Quality Control and Quality Control Assurance in the production of Fish Products; Quality management,Control and Assurance in Production.
Others:	Use of Information Technology in the Fisheries Industry.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control; Sensory; Fish Health.
Others:	Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Research Vessel; Machine Shop; Pilot Plant for Industrial Technological Equipment; Full Scale Marine Installation/Aquaculture Plant (for trying out Products and Technology under Practical Conditions).

Serial Publications: Annual Reports
Press Releases (Covering Different Activities at the Institute).

OMAN 0085

Marine Science and Fisheries Centre

Address: Ministry of Agriculture and Fisheries

Tel: (968)-740.061/62/63
Fax: (968)-740.159
Mail to: PO Box 467 Muscat 113

Head of Organization Mr Thabit Zahran Al-Abdessalaam
Type of Organization Research Institute

Number of Staff: Scientists: 5
Working Languages: Arabic; English

Major Fields of Interest:

Handling:	Onshore.
Processing:	Drying; Salting/Drying; Smoking; Canning; Freezing; Minced Products.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Equipment.
Quality:	Fish Quality Control/Assurance.
Others:	Nutrition; Training.

Present Programmes: Jelly Products.
Quality Control (Fish Storage, Handling).

Working Facilities:

Laboratories:	Chemistry; Processing; Quality Control.
Others:	Ice Making Plant; Test Kitchen; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Processing	not specified	not specified	English

PERU 0086

Peruvian Institute of Fish Technology, ITP

Address: Km 5,200 Carretera a Ventanilla, Callao 1

Tel: (51)-14-517.587/605
Fax: (51)-14-512.181/517.605/587
Mail to: P.O. Box 0360-01, Callao 1

Head of Organization President of the Board of Directors, Alfredo Yashimoto
Type of Organization Research Institute
Responsible Authority Mr. Victor Nishio, Executive Director

Working Languages: Spanish; English; French; German; Japanese

Major Fields of Interest:

Handling: Onboard; Onshore; Bulk Handling/Storage; Fresh Fish Transport/Holding/Storage; Chilling.

Processing: Freezing; Mincing and Surimi Based Products; Salting; Drying; Smoking; Marinates; Canning; Fermentation.

Species: Fish; Crustaceans; Molluscs; Cephalopods; Algae.

Development: Frozen Prepared Fish Products; Fish Paste Products; Cured Fish products; Snacks; New Canned products; Fermented Sauces.

Quality: Fish Inspection; Total Quality Control; HACCP; Sanitation; Microbiological Rapid Methods.

Others: Nutrition; Marine Pollution; Training and Technology Transfer; Organic Bioconversions; Biological Fish Waste Disposal; Molecular Detection of Pathogens; Applied Molecular Techniques for Aquaculture.

Present Programmes: Anchovy Utilization for Human Consumption; Salted Fish Products; Minced Fish Based Products; Baby Food; Molecular Methods of Control; Histamine Detection methods; Scallops Genetic Improvement.

Working Facilities:

Laboratories: Chemistry; Microbiology; Instrumental; Sensory Assessment.

Others: Pilot Plant; Ice Making Plant; Library; Freezing Tunnel; Auditorium.

Regular Training Programmes:

Title	Frequency	Duration	Language
International Course of Fishery Technology	yearly	45 days	Spanish
Short Courses *(see below)	yearly	5-10 days	Spanish
Training for Field Extensionists	yearly	20 days	Spanish
Training for Artisanal Fishermen and Processors	monthly	20 days	Spanish

*Molecular Method for Pathogen Detection; *Biogenic Amines:Histamine Determination
*Fish Silage Technology; *Surimi Based Products; *Cured Product Technology; *Fish Oil and Proteins.

Others:

Title	Duration	Language
Individual Training Courses (National and International)		Spanish/English
Training Services		Spanish/English

Serial Publications: Bulletin of the Instituto Tecnológico Pesquero del Peru (ITP); Technical Notes; Commercial Fish Catalogue

PHILIPPINES 0087

Bureau of Fisheries and Aquatic Resources

Address: 860 Quezon Avenue, Quezon City 1100

Tel: (63)-2-965.498/973.617
Fax: (63)-2-988.517/967.709

Head of Organization Director, Mr Dennis B. Araullo
Type of Organization Research Institute, National Authority
Responsible Authority Department of Agriculture

Number of Staff: Scientists: 41 Others: 5
Working Languages: English; Filipino

Major Fields of Interest:

- **Handling:** Onboard; Onshore; Depuration; Bulk Handling and Storage; Live Fish Transport; Storage.
- **Processing:** Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Processing of Agar from Gracilaria; Chitin/Chitosan; Fish Protein Concentrate; Surimi; Fish Oil; Irradiation of Frozen Prawns and dried Salted Fish; Fish Leather.
- **Species:** Crustaceans; Molluscs; Cephalopods; Algae.
- **Development:** Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment; Marine Biotechnology.
- **Quality:** Fish Inspection; Quality Control; Fish Quality Control/Assurance; HACCP Programme.
- **Others:** Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Fishing Technology; Fish Culture; Marine Pollution; Fish Chemistry; Microbiology; Bioremediation; Marine Natural Products.

Present Programmes: Improvement of Fish Handling Practices; Reduction of Spoilage Losses; Development of Value-added Products; Quality Assurance; Development of Quality Standards and Codes of Practice; Chemical and Microbiological Studies.

Working Facilities:

- **Laboratories:** Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control; Cyanide Detection Test (CDT); Post Harvest Technology (Fish Handling, Processing and Product Development); Bioassay for PSP Toxin; Agar Processing; Test Kitchen; Taste Panel Room; Library; Research Vessel; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Processing, Chemical and Microbiological Analysis, Product Development and Quality Control	quarterly	1-3 months	English/Filipino

Serial Publications: Philippine Fisheries Research Journal; Fisheries Newsletter

PHILIPPINES 0088

College of Fisheries, University of the Philippines in the Visayas

Address: Miagao, Iloilo 5023

Tel: (63)-33-81.534/81.535
Fax: (63)-33-81.534

Head of Organization Dean, Pepito M. Fernandez
Type of Organization Research Institute; Univ. Dept./Higher Educ.; Government Dept.
Responsible Authority Chancellor and President of the University

Number of Staff: Scientists: 9 Others: 16
Working Languages: English; Pilipino; Hiligaynon

Major Fields of Interest:

- **Handling:** Onboard; Onshore.
- **Processing:** Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
- **Species:** Fish; Crustaceans; Molluscs; Cephalopods; Algae.
- **Development:** Traditional and New Processes; New Packaging; New Equipment.
- **Quality:** Fish Inspection; Quality Control; Fish Quality Control/Assurance.
- **Others:** Biochemistry; Nutrition; Statistics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Fishing Technology; Fish Culture; Marine Pollution; Fish Systematic.

Present Programmes: Academic Programme:

a) Bachelor of Science in Fish Processing Technology.
b) Master of Science in Fish Processing Technology.

Working Facilities:

- **Laboratories:** Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control; Hatchery Laboratory.
- **Others:** Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Research Vessel; Machine Shop; Fish Culture Ponds; Walk in Freezer; Hatchery Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
BSc/MSc in Fish Processing Technology	on-going	not specified	English
Fish Processing Technology-Quality Control		3 weeks	English
Post Harvest Technology-Handling/Quality Control		3 weeks	English

PHILIPPINES 0089

Institute of Food Science and Technology

Address: University of the Philippines at Los Banos, College, Laguna 4031

Tel: (63)-94-3472/2358
Fax: (63)-94-3472

Head of Organization Dr Ernesto V. Carpio
Type of Organization Academic and Research Institute
Responsible Authority Chancellor

Number of Staff: Scientists: 9 Others: 30

Major Fields of Interest:

Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Minced Products.
Species:	Fish.
Development:	Traditional Fish Products; Traditional and New Processes.
Quality:	Fish Quality Control/Assurance.
Others:	Consultation; Training; Extension.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Microbiology; Quality Control.
Others:	Pilot Plant; Test Kitchen; Taste Panel Room.

PHILIPPINES 0090

Philippine Council for Aquatic and Marine Research and Development

Address: Los Banos, Laguna

Head of Organization: Executive Director, Dr Rafael D. Guerrero III
Type of Organization: National Authority
Responsible Authority: Department of Science and Technology

Number of Staff: Scientists: 1
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
Species:	Crustaceans; Molluscs; Cephalopods; Algae.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Nutrition; Economics; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Processing.
Utilization of Fish and Fishery Products.

Regular Training Programmes:

Title	Frequency	Duration	Language
Processing and Utilization of Fish and Fishery Products	on request	1-2 days	English/Filipino

POLAND 0091

Sea Fisheries Institute, Fish Processing and Equipment Department

Address: 1 Kollataja Str., Gdynia 81-332

Tel: (48)-058- 205.211
Fax: (48)-058-202.831
Email: Ztimp@miryb.mir.gdynia.pl
Telex: 054348 mir pl

Head of Organization Director, Prof Zygmunt Polanski
Type of Organization Research Institute
Responsible Authority Ministry of Transportation and Maritime Economy

Number of Staff: Scientists: 8 Others: 23
Working Languages: English; Polish

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration.
Processing:	Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal; Chilling; Chitin/Chitosan; Fish Silage; Marinades.
Species:	Fish; Crustaceans; Molluscs; Cephalopods.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment; Fish Waste Utilization; Shelf-life.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Consultation; Training; Marine Pollution.

Present Programmes: Containers; Clean Technology in Fish Industry; Quality Assurance; Development in Canning, Smoking and Marinading Processes; Silage; Chitin/Chitosan; Packages.

Working Facilities:

Laboratories:	Chemistry; Processing; Quality Control; Biopolymers.
Others:	Cold Storage; Test Kitchen; Taste Panel Room; Research Vessel; Machine Shop.

Regular Training Programmes:

Title	Frequency	Duration	Language
Polish Fish Technologists' Conference	yearly	1-2 days	Polish
Scientific Meetings at the Department	6 times/year	3 hours	Polish

Others:

Title	Duration	Language
Quality Assurance, Quality Management	1 week	English/Polish
HACCP in Fish Industry	1 week	English/Polish
New Developments in Fish Processing	1 week	English/Polish

Serial Publications: Bulletin of the Sea Fisheries Institute; Reports of the Sea Fisheries Institute

POLAND 0092

Technical University of Gdansk, Department of Food Preservation.

Address: Gabriela Narutowicza 11/12, Gdansk 80-952

Tel: (48)-58-471.246
Fax: (48)-58-472.6941
Email: chemktuz@sunrise.pg.gda.pl
Telex: 051 2302 plg pl

Head of Organization Professor of Technical Sciences, Dr Zdzistaw Edmund Sikorski
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Ministry of Education

Number of Staff: Scientists: 8 Others: 5
Working Languages: English; German; Polish; Russian

Major Fields of Interest:

Processing:	Smoking; Canning; Freezing; Minced Products; Fish Meal; Fish Proteins; Fish Enzymes; Fish silage.
Species:	Baltic Cod; Baltic Herring; Baltic Sprat; Squid; Krill.
Development:	New Fish Products; Traditional and New Processes.
Quality:	Quality Control; Fish Microbiology; PCR Methods for Diagnosis of Pathogenic Bacteria.
Others:	Biochemistry; Consultation; Training; Extension; Unit Operations and Processes in Food Technology.

Present Programmes: Smoking of Fish.
Utilization of Fish and Squid Enzymes.
Fish Collagens.
Krill Chitin/Chitosan.
PCR Methods of Diagnosis of Pathogenic Bacteria.

Working Facilities:

Laboratories:	Chemistry; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Taste Panel Room; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
BS in Food Technology		4 years	Polish
MSc in Food Chemistry and Technology (including Fish Processing)		5 years	Polish
PhD Studies in Food Chemistry		4 years	Polish/English

PORTUGAL 0093

Instituto Portugues de Investigação Marítima (IPIMAR)

(Portuguese Marine Research Institute)

Address: Avenida de Brasilia, Lisboa 1400

Tel: (351)-1-301.0814/301.4698
Fax: (351)-1-301.5948
Telex: 15857 IPIMAR P

Head of Organization: President, Carlos Sousa Reis
Type of Organization: Research Institute
Responsible Authority: Ministerio do Mar

Number of Staff: Scientists: 15 Others: 16
Working Languages: English; French; Portuguese

Major Fields of Interest:

- Handling: Onboard; Onshore; Bulk Handling and Storage.
- Processing: Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Surimi; Fish Silage; Fish Hydrolysates; Fish Irridation; Fish Oil; Fish Proteins; Chitin/Chitosan; Chilling.
- Species: Fish (Anchovies); Crustaceans; Molluscs; Cephalopods.
- Development: Traditional and New Fish Products; Traditional and New Processes; Fish Waste Utilization; Shelf-life.
- Quality: Quality Control; Fish Quality Control/Assurance.
- Others: Biochemistry; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Technologies of Fish Processing and Biotechnology.
Quality Monitoring and Quality Assurance.

Working Facilities:

- Laboratories: Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
- Others: Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Research Vessel; Fish Culture Ponds.

Other training programmes:

Title	Duration	Language
Post Graduate Training Courses for Developing Countries	variable: up to 3 years	Portuguese/ English/French

ROMANIA 0094

Department of Fishing and Aquaculture

Address: 63 Garii Street, Galati 6200

Tel: (40)-36-415.641/2/3
Fax: (40)-36-461.353

Head of Organization Dr/Engineer Mircea Rauta
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Dunarea De Jos University, Galati

Number of Staff: Scientists: 40 Others: 10
Working Languages: Romanian; English; French

Major Fields of Interest:

Handling: Onboard; Onshore.
Processing: Drying; Salting/Drying; Smoking; Canning; Freezing; Fish Meal; Fish Oil.
Species: Crustaceans; Molluscs; Cephalopods; Algae.
Development: Traditional and New Products; Traditional and New Processes; New Equipment.
Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others: Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution; Hydrology.

Present Programmes: Fish Stock Dynamics in the Continental Waters of Romania.

Working Facilities:

Laboratories: Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control; Hydrology.
Others: Pilot Plant; Ice Making Plant; Cold Storage; Library; Research Vessel; Machine Shop; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fisheries Management and Planning	yearly	12 weeks	Romanian

Serial Publications: APPR Bulletin - Biannual Magazine

ROMANIA 0095

Fish Culture Research Station - Nucet

Address: Nucet 0230, Judetul Dambovita

Tel: (40)-45-617.335
Fax: (40)-45-617.335

Head of Organization General Director, Mr Danut Vizitiu
Type of Organization Research Institute
Responsible Authority Academy of Agricultural and Forestry Sciences

Number of Staff: Scientists: 20 Others: 70
Working Languages: Romanian; English

Major Fields of Interest:

Handling:	Live Fish Transport and Holding (from Fry to Broodfish).
Species:	Common Carp and Other Cyprinids; Crustaceans.
Development:	Traditional Fish Products; Traditional Processes; Traditional Equipment.
Others:	Nutrition; Consultation; Fishery Biology; Fishing Technology; Fish Culture.

Present Programmes: Freshwater Fish Culture;
Genetic and Improvement of Common Carp Races;
Breeding and Rearing Technologies;
Nutrition;
Applied Freshwater Ecology;
Fish Diseases.

Working Facilities:

Laboratories:	Chemistry; Biology; Engineering; Biochemistry; Intensive Fish Culture; Selection, Hybridization and Genetic Engineering; Artificial Spawning; Production of Fry and Fingerlings.
Others:	Pilot Plant; Library; Fish Culture Ponds; Hatcheries and Ponds.

ROMANIA 0096

Fish Farming, Fishing and Fish processing Research Centre

Address: 2-4 Portului Street, Galati 6200

Tel: (40)-93-416.914

Head of Organization Director/Senior Researcher, Constantin Pecheanu
Type of Organization Research Institute
Responsible Authority Academy of Agricultural and Forestry Sciences

Number of Staff: Scientists: 20 Others: 10
Working Languages: Romanian; English

Major Fields of Interest:

Processing: Drying; Salting/Drying; Smoking; Canning; Freezing; Fish Meal.
Species: Crustaceans; Algae.
Development: New Fish Products; New Processes; New Equipment.
Others: Biochemistry; Nutrition; Statistics; Consultation; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Fish Pathology; Genetics; Hydrobiology.

Present Programmes: Fish Reproduction Rearing;
Breeding;
Mechanization and Processing.

Working Facilities:

Laboratories: Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control; Fish Pathology; Genetics; Nutrition.
Others: Pilot Plant; Test Kitchen; Library; Machine Shop; Hatchery; Rearing Unit; Fish Cages.

ROMANIA 0097

Research Station for Aquaculture and Fishing ("AACVARES" SA IASI)

Address: Sos. Iasi-Ciurea, km 5, Iasi 6600

Tel: (40)-32-124.5153
Fax: (40)-98-124.153
Mail to: C.P. 847, Official Postal 3, 6000

Head of Organization Aquaculture Engineer, Mr Mircea Cuvinciuc
Type of Organization Research Institute; Fish Culture/Research/Marketing Organization
Responsible Authority Academy of Agricultural and Forest Science (Gheorghe Ionescu Sisesti")

Number of Staff: Scientists: 32 Others: 69
Working Languages: Romanian

Major Fields of Interest:

Handling:	Onboard; Onshore.
Development:	Traditional Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Training; Fishery Resources; Fishery Biology; Fishing Technology; Fish Culture.

Present Programmes: Research in Fish Technology, Fishing Technology, Aquatic Ecology and Acclimatization of New Fishes.

Working Facilities:

Laboratories:	Chemistry; Biochemistry; Nutrition; Fisheries Technology; Genetic; Pathology; Hydrobiology.
Others:	Station for Artificial Fish Reproduction; Pools and Reservoirs.

ROMANIA 0098

Romanian Association of Fishermen and Fishculturists

Address: 63 Garii Street, Galati 6200

Tel: (40)-36-415.641/2/3
Fax: (40)-36-461.353
Email: fish@ugal.ro

Head of Organization: Dr/Engineer Mircea Rauta
Type of Organization: Univ. Dept./Higher Educ; National Authority

Number of Staff: Scientists: 40 Others: 10
Working Languages: Romanian; English; French

Major Fields of Interest:

- **Handling:** Onboard; Onshore; Live Fish Transport/Holding/Storage; Bulk Handling/Storage.
- **Processing:** Drying; Salting/Drying; Smoking; Canning; Freezing; Minced Products; Fish Meal.
- **Species:** Crustaceans; Molluscs; Cephalopods; Algae.
- **Development:** Traditional and New Fish Products; Traditional Pocesses; Traditional and New Packaging; New Equipment.
- **Quality:** Fish Inspection; Quality Control; Fish Quality Control/Assurance.
- **Others:** Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution; Fish Selection and Genetics; Fish Disease; Fishing Gear and Equipment; Fisheries Engineering.

Present Programmes: Growth Technology for High Value Fish Species.
Fish Stock Dynamics in the Continental Waters of Romania.

Working Facilities:

- **Laboratories:** Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
- **Others:** Pilot Plant; Ice Making Plant; Cold Storage; Library; Research Vessel; Machine Shop; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
MSc in Aquaculture Engineering		2 years	*
MSc in Fishing Engineering		2 years	*

*Romanian/English/French

Others:

Title	Duration	Language
Aquaculture Farming Systems	12 weeks	*
Fisheries Management and Planning	12weeks	*

*Romanian/English/French

Serial Publications: The Bulletin of Dumarea de Jos University - Galati Fasc. VII - Fish Technology Aquaculture and Fishing Bulletin Quarterly

ROMANIA 0099

Romanian Marine Research Institute

Address: Blvd Mamaia 300, RO-8700 Constanta 3

Tel: (40)-41-643.288
Fax: (40)-41-831.274
Telex: 14418

Head of Organization Director, Dr Engineer Simion Nicolaev
Type of Organization Research Institute
Responsible Authority Ministry of Waters, Forests and Environment Protection

Number of Staff: Scientists: 80 Others: 115
Working Languages: Romanian; English; Russian

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Drying; Salting/Drying; Smoking; Canning; Freezing; Fish Meal.
Species:	Fish; Molluscs.
Others:	Biochemistry; Statistics; Consultation; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Marine Pollution.

Present Programmes: Study on the evolution of Structure, Distribution and Condition of Black Sea Ichthyofauna;
Identification of Factors Determining Resource Abundance and Biomass and Ways to Protect them;
Programme Concerning Population Dynamics and Assessment of Pelagic Fish in the East Central Atlantic Ocean.

Working Facilities:

Laboratories:	Chemistry; Biology; Engineering; Biochemistry; Microbiology; Quality Control; Radioactivity.
Others:	Library; Research Vessel; Fish Culture Ponds.

SENEGAL 0100

Institut de Technologie Alimentaire

Address: Route des Pères Maristes-HANN, Dakar

Tel: (221)-32-1955
Fax: (221)-32-8295
Mail to: BP: 2765, Dakar

Head of Organization Director General, Mohamadou Diop
Type of Organization Research Institute
Responsible Authority Ministère de la Recherche Scientifique et de la Technologie

Number of Staff: Scientists: 4
Working Languages: French

Major Fields of Interest:

Handling:	Onboard; Onshore; Live Fish Transport/Holding/Storage.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Fish Meal; Marinades.
Species:	Crustaceans; Molluscs.
Development:	New Fish Products; New Processes; New Packaging; New Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Nutrition; Consultation; Training; Extension.

Present Programmes: Extension Insulated Containers;
Introduction of salted pressed sardinella;
Technical support to small enterprises (improved smoking/drying);
Training in prevention of insect infestation in fishery products;
(Training in the utilization of Actellic 50).

Working Facilities:

Laboratories:	Chemistry; Processing; Microbiology; Quality Control.
Others:	Cold Storage; Test Kitchen; Taste Panel Room; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
Improved processing methods (fisheries officers)	yearly	1 week	French
Introduction in fish technology (for students)	yearly	3 weeks	French
Improved small-scale fish processing	yearly	1 week	French

SINGAPORE 0101

Marine Fisheries Research Department

Address: Changi Fisheries Complex, Changi Point, Singapore 1749

Tel: (65)-542.8455
Fax: (65)-545.1483

Head of Organization Chief, Mr Sen Min Tan
Type of Organization Research Institute; Regional Authority
Responsible Authority Southeast Asian Fisheries Development Center (SEAFDEC) Council Directors through Secretary General, SEAFDEC

Number of Staff: Scientists: 16 Others: 8
Working Languages: English

Major Fields of Interest:

- **Handling:** Onshore.
- **Processing:** Salting/Drying; Smoking; Freezing; Icing; Chilling; Minced Products; Surimi and Surimi Products; Retorting.
- **Species:** Crustaceans; Molluscs; Cephalopods; Teleosts; Elasmobranchs.
- **Development:** Traditional and New Fish Products; New Packaging; Traditional and New Processes.
- **Quality:** Fish Quality Control/Assurance.
- **Others:** Consultation; Training; Extension; Seafood Safty; Fish Oils.

Working Facilities:

- **Laboratories:** Chemistry; Processing; Microbiology; Product Development.
- **Others:** Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Processing and Packaging	yearly	2 weeks	English
Fish Processing	yearly	2 weeks	English
Fish Quality Assessment Methods-Seafood Safety	yearly	2 weeks	English
Fish Processing		5 days	English

SOLOMON ISLANDS 0102

School of Marine and Fisheries Studies

Address: c/o SICHE, Ranidi Campus, PO Box G23, Honiara

Tel: (677)-30.686
Fax: (677)-30.390

Head of Organization Mr Colin Campbell Brown
Type of Organization Regional Authority; Univ. Dept./Higher Educ.; Research at vocational level
Responsible Authority Government of Solomon Islands

Number of Staff: Scientists: 4 Others: 1
Working Languages: English; Melanesian Pidjin

Major Fields of Interest:

- **Handling:** Onboard; Onshore.
- **Processing:** Drying; Salting/Drying; Smoking; Canning; Freezing; Fish Meal.
- **Species:** Crustaceans; Molluscs.
- **Development:** Traditional and New Fish Products; Traditional and New Process; New Packaging; New Equipment.
- **Quality:** Fish Inspection; Quality Control; Fish Quality Control/Assurance.
- **Others:** Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Training for National and Inshore Fleets; Rural Community Training; Culture of Giant Clam, Black Lip Oyster for Export.

Working Facilities:

- **Laboratories:** Biology; Processing; Engineering; Quality Control.
- **Others:** Ice Making Plant; Cold Storage; Library; Research Vessel; Machine Shop; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Courses for Skippers and Engineers (Offshore Fishing Vessels)	continous	2-10 months	*
Local Fisherman's Licence	twice yearly	9 weeks	*
Village Fisheries (Outreach Team)	continous	2-6 weeks	*

*English/Pidjin

Others:

Title	Duration	Language
Senior Fisheries Officers' Management Course	9 weeks	English
Fisheries Observer Course		English
Aquaculture Course		English

SOLOMON ISLANDS 0103

South Pacific Forum Fisheries Agency

Address: P.O.Box 629, Honiara

Tel: (677)-21.124
Fax: (677)-20.092
Email: Sarahw@ffa.gov.sb (Information Officer)
Callistam@ffa.gov.sb (Deputy Director's Secretary)
Telex: (778)HQ66336.

Head of Organization Director, Mr Victorio Uherbelau
Type of Organization Regional Authority
Responsible Authority 16 SPFFA member countries

Number of Staff: Others: 29
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Drying; Salting/Drying; Smoking; Freezing.
Species:	Crustaceans; Molluscs; Cephalopods.
Development:	New Fish Product; New Processes; New Packaging; New Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Statistics; Economics; Consultation; Training; Extension; Stock Assessment; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Legal Issues.

SOUTH AFRICA 0104

Fishing Industry Research Institute, FOODTEK, CSIR

Address: 15 Lower Hope St., Rosebank, Cape Town 7700

Tel: (27)-21-689.9341
Fax: (27)-21-686.6116

Head of Organization Manager, Dr J.G. Niemand
Type of Organization Research Institute
Responsible Authority CSIR Executive

Number of Staff: Scientists: 19 Others: 10
Working Languages: English; Afrikaans

Major Fields of Interest:

Handling:	Depuration; Transportation.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
Species:	Crustaceans; Molluscs; Cephalopods.
Development:	New Fish Products; New Processes; New Packaging; New Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance; Chemical Analysis.
Others:	Biochemistry; Nutrition; Consultation; Training; Toxicological Analyses.

Present Programmes: Fish Oil Quality and Composition;
Lobster Live Transport;
Sauces for Canned Products;
Raw Material Quality Standard;
Antioxidents in Fish Meal;
Canned Fish Process and Product Optimisation.

Working Facilities:

Laboratories:	Chemistry; Processing; Engineering; Biochemistry; Microbiology; Analytical.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Library; Machine Shop; Food Technology and Engineering.

Regular Training Programmes:

Title	Frequency	Duration	Language
HACCP			
Introductory Microbiology			
Basic Hygiene	no other data given		
Advanced Microbiology			
Retort Operators Training Course			

SPAIN 0105

Instituto del Frío

Address: Avda. Ramiro de Maeztu, s/n, Madrid 28040

Tel: (34)-1-549.2300
Fax: (34)-1-549.3627
Email: Mtejada@cc.csic.es

Head of Organization Director, Dr Jose Miguel Diaz Serrano
Type of Organization Research Institute
Responsible Authority Consejo Superior de Investigaciones Científicas

Number of Staff: Scientists: 35 Others: 60
Working Languages: Spanish; English; French

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Smoking; Freezing; Minced Products.
Species:	Crustaceans; Molluscs; Cephalopods.
Development:	Traditional and New Fish Poducts; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry.

Working Facilities:

Laboratories:	Chemistry; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
Technology of Fish	yearly	2 weeks	

SPAIN 0106

Instituto Investigaciones Marinas

Address: Eduardo Cabello, 6, Vigo 36208

Tel: (34)-86-292.758
Fax: (34)-86-292.762

Head of Organization Mr Labarta Uxio
Type of Organization Research Institute
Responsible Authority CSIC (Consejo Superior de Investigaciones Cientfficas)

Number of Staff: Scientists: 18 Others: 20
Working Languages: English; French; Spanish

Major Fields of Interest:

Processing:	Canning; Freezing; Minced Products.
Development:	Traditional and New Fish Products; Traditional and New Processes; New Equipment.
Quality:	Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Fishing Technology; Fish Culture.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Cold Storage; Library; Research Vessel; Fish Culture Ponds.

SPAIN 0107

Laboratorio Tecnología de Productos Pesqueros, Facultad de Biología, Universidad de Santiago

Address: Campus Universitario Sur s/n, Santiago de Compostela (La Coruña) 15706

Tel: (34)-81-563.100 ext.3342/3347
Fax: (34)-81-596.904
Email: baltppcp@uscmail.usc.es

Head of Organization: Dr. Cruz Pascual
Type of Organization: Univ. Dept./Higher Educ.

Working Languages: English; French; Spanish

Major Fields of Interest:

Handling:	Bulk Handling and Storage; Storage.
Processing:	Salting/Drying; Fermentation; Canning; Freezing; Ripening; Chilling.
Species:	Fish; Molluscs.
Development:	Fish Waste Utilization; Shelf-life; Snack Food; Ripening.
Quality:	Fish Inspection; Quality Control.
Others:	Biochemistry; Nutrition; Consultation; Fishing Technology.

Working Facilities:

Laboratories:	Biology; Biochemistry.
Others:	Taste Panel Room; Library.

Other Training Programmes:

Title	Duration	Language
Technology of Fisheries Products for 4th and 5th year Biology students	80h theory and 50h practical	Spanish

SRI LANKA 0108

Sri Lanka Standards Institution

Address: 53 Dharmapala Mawatha, Colombo

Tel: (94)-1-326.051/3
Fax: (94)-1-446.018

Head of Organization Director General, C.D.R.A. Jayawardena
Type of Organization National Authority
Responsible Authority Ministry of Industries, Science and Technology

Number of Staff: Scientists: 5 Others: 3
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal.
Species:	Crustaceans; Molluscs; Cephalopods; Algae.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Statistics; Economics; Consultation; Training; Fishery Biology; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Mandatory Registration Scheme for Fish Processors/Exportors;
Issuance of Health Certificates for Export to EEC;
Training Programme, Seminar and Workshops on Quality Control Aspects.

Working Facilities:

Laboratories:	Chemistry; Microbiology; Quality Control.
Others:	Taste Panel Room; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
Seminar/Workshop on Quality Control in Fish Processing	yearly	4 days	English
Workshop on Sensory Evaluation and Grading of Shrimps	yearly	0,5 day	English
Seminar on Application of HACCP in Fish Processing Industry	yearly	1 day	English

Others:

Title	Duration	Language
Workshops on Hygienic and Sanitation in Fish Processing for Factory Workers	1 day	Sinhala/English

SWEDEN 0109

The Swedish Institute for Food Research (SIK)

Address: Frans Perssons vag 6, Goteborg

Tel: (46)-31-355.600
Email: Kaj.Martensson@sik.se
Cable: SIKINSTITUT
Mail to: PO Box 5401, Goteborg S-402 29

Head of Organization Managing Director, Prof Kaj Martensson
Type of Organization Research Institute, Univ. Dept./Higher Educ.
Responsible Authority The SIK Foundation
- a Member Association with some 100 Member Companies.
National Swedish Board for Industry and Technical Development.

Number of Staff: Scientists: 60 Others: 40
Working Languages: English; Swedish

Major Fields of Interest:

Processing:	Canning; Freezing and Thawing; Minced Products; Food Chemistry and Technology in General.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment; Shelf-life.
Quality:	Quality Control.
Others:	Biochemistry; Consultation; Training.

Present Programmes: Quality Changes Caused by Oxidation-Lipid Oxidation Measurements; Changes in Fish Muscle Caused and Influenced by Enzymes During Chilling and Freezing; Fish Resources; New Products from Minced Herring.

Working Facilities:

Laboratories:	Chemistry; Processing; Engineering; Biochemistry; Microbiology; Sensory Analysis; Packaging; Biophysics (Structure of Food).
Others:	Cold Storage; Test Kitchen; Taste Panel Room; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
Food Microbiology	twice yearly	1 week	Swedish
Basic Food Chemistry	yearly	2 days	Swedish

Others:

Title	Duration	Language
Microbiology and Hygiene		Swedish
Food Chemistry		Swedish
Temperature Measurement	As required	Swedish

Serial Publications: SIK-Publikation; SIK-Report

THAILAND 0110

Dept. of Biotechnology, Faculty of Science, Mahidol University

Address: Rama VI Rd., Bangkok 10400

Tel: (66)-2-245.5650
Fax: (66)-2-246.3026
Telex: 84770 UNIMAHITH
Cable: SCIMAHIDOL

Head of Organization: Dr Watanalai Panbangred
Type of Organization: Univ. Dept./Higher Educ.
Responsible Authority: Prof. Pradit Charoenthaithawee, President of Mahidol University

Number of Staff: Scientists: 2 Others: 1
Working Languages: English; Thai

Major Fields of Interest:
- Processing: Fermentation; Fish Meal.
- Species: Crustaceans.
- Development: Traditional Fish Products.
- Others: Nutrition.

Present Programmes: Food Technology; Industrial Biotechnology.

Working Facilities:
- Laboratories: Processing; Biochemistry; Microbiology; Quality Control; Genetic Engineering.
- Others: Pilot Plant; Library.

THAILAND 0111

Dept. of Fishery Products, Faculty of Fisheries

Address: 50 Phaholyothin Rd. Chatuchak, Bangkok 10900

Tel: (66)-2-579.5577 ·
Fax: (66)-2-579.5579

Head of Organization Dr Wanchai Worawattanamateekul
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Kasetsart University

Number of Staff: Scientists: 7 Others: 4
Working Languages: Thai

Major Fields of Interest:

Processing:	Drying; Salting/Drying; Fermentation; Smoking; Freezing; Minced Products; Fish Meal; Fish Oil.
Species:	Crustaceans; Molluscs; Cephalopods; Algae.
Development:	Traditional and New Fish Products; Traditional and New Processes; Waste Utilization; Snack Food.
Quality:	Fish Inspection; Quality Control.
Others:	Biochemistry; Nutrition.

Present Programmes: Teaching at BS and MS Levels; Research on Fish Processing; Fish Microbiology.

Working Facilities:

Laboratories:	Chemistry; Processing; Microbiology.
Others:	Test Kitchen; Library.

Regular Training Programmes:

Title	Frequency	Duration	Language
BS and MS	on-going		Thai

Others:

Title	Duration	Language
not given	As required	Thai/English

THAILAND 0112

Faculty of Agro-Industry, Prince of Songkla University

Address: Hat-Yai Campus, Hat-Yai 90110

Tel: (66)-74-212.889
Fax: (66)-74-212.889
Email: sopairat@ratree.psu.ac.th

Head of Organization: Assistant Professor, Dr Pairat Sophanodora
Type of Organization: Research Institute; Univ. Dept./Higher Educ.
Responsible Authority: Ministry of University Affairs

Number of Staff: Scientists: 30 Others: 7
Working Languages: Thai

Major Fields of Interest:

Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Value Added Products; Waste Utilization; Chitin/Chitosan.
Species:	Finfish-Pelagic Demersal; Crustaceans; Molluscs; Cephalopods; Algae.
Development:	Traditional and New Fish Products; Traditional and new Processes; Traditional Packaging; Fish Waste Utilization; Snack Foods.
Quality:	Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Marine Biotechnology.

Present Programmes: BSc and MSc Courses.

Working Facilities:

Laboratories:	Chemistry; Processing; Microbiology.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Sensory Evaluation Room.

Regular Training Programmes:

Title	Frequency	Duration	Language
BSc Course	yearly	4 years	Thai
MSc Course	yearly	2 years	Thai/English
Workshops/Seminars	yearly	2-5 days	Thai/English

THAILAND 0113

Fish Inspection and Quality Control Division

Address: Kasetsart University Campus, Paholyothin Road, Chattuchak, Bangkok 10900

Tel: (66)-2-579.8078/579.6729/579.6915
Fax: (66)-2-579.6687

Head of Organization Director, Mr Montri Klitsaneephaiboon
Type of Organization Government Dept.
Responsible Authority Department of Fisheries, Ministry of Agriculture and Cooperatives

Number of Staff: Scientists: 45 Others: 70
Working Languages: Thai; English

Major Fields of Interest:

Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurance; Laboratory Accreditation; Inter Laboratory Collaboration; HACCP; ISO 9000; ISO/IEC Guide 25.

Others: Training; Inspection Agreement.

Working Facilities:

Laboratories: Chemistry; Microbiology; Physical Examination.

Others: Taste Panel Room.

Regular Training Programmes:

Title	Frequency	Duration	Language
Principles and Application of HACCP	twice a year	5-10 days	Thai/English
Quality Assurance in Fish Inspection Laboratory	yearly	5 days	Thai/English
Sensory Evaluation for Fishery Products	yearly	3-5 days	Thai/English
Laboratory Analysis for Fish products	yearly	3-5 days	Thai/English

Others:

Title	Duration	Language
Container Integrity	3 days	Thai/English
Retort Supervisor Training	4 days	Thai/English
Processing Establishment Sanitation	3 days	Thai/English

THAILAND 0114

Fishery Technological Development Institute

Address: 64 Chareon Krung Road, Yannawa, Bangkok 10120

Tel: (66)-2-211.1261/212.4552
Fax: (66)-2.212.9446

Head of Organization Director, Dr Poonsap Virulhakul
Type of Organization Research Institute
Responsible Authority Department of Fisheries

Number of Staff: Scientists: 14 Others: 32
Working Languages: Thai

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration; Bulk Handling and Storage; Live Fish Transport.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Irradiation; Minced Products; Surimi; Chitin/Chitosan.
Species:	Crustaceans; Molluscs; Cephalopods.
Development:	Traditional and New Fish Produsts; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment; Fish Waste Utilization; Shelf-Life; Snack Food.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Training; Training in Field of Fish Technology.

Working Facilities:

Laboratories:	Chemistry; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Surimi and Crab Imitation Plant; Fish Protein Concentration Plant.

Other Training Programmes:

Title	Duration	Language
Fish Handling and Processing	as required	English

NETHERLANDS 0115

Landbouw-Economisch Instituut (LEI-DLO) Afdeling Visserij
Agricultural Economics Research Institute, Fisheries Division

Address: Burg. Patynlaan 19, The Hague 2585 BE

Tel: (31)-70-330.8330
Fax: (31)-70-361.5624
Email: W.Smit@lei.agro.nl
Mail to: PO Box 2970, The Hague 2502 LS

Head of Organization Mr Wil Smit
Type of Organization Research Institute
Responsible Authority Dienst Landbouwkundig Onderzoek (DLO) of the Ministry of Agriculture

Number of Staff: Scientists: 10 Others: 6
Working Languages: Dutch; English

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products.
Species:	Crustaceans; Molluscs; Cephalopods.
Development:	Traditional and New Fish Products; Traditional and New Packaging.
Others:	Statistics; Economics; Consultation; Management Information; Institutional Analysis; Legal Issues.

Present Programmes: Product Development.
Market Analysis.

Working Facilities: Library.

NETHERLANDS 0116

Netherlands Institute for Fisheries Research

Address: Haringkade 1, IJmuiden 1976 CA

Tel: (31)-25-506.4646
Fax: (31)-25-506.4644
Mail to: PO Box 68, Ymuiden 1970 AB

Head of Organization Director, Dr J.W.D.M. Henfling
Type of Organization Research Institute
Responsible Authority Agricultural Research Department of the Netherlands (DLO-NL)

Number of Staff: Scientists: 39 Others: 81
Working Languages: Dutch; English; French; Spanish; German

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal; Processing and Upgrading of Waste Products.
Species:	Fish; Crustaceans; Molluscs; Cephalopods.
Development:	New Fish Products; Traditional and New Processes; New Packaging.
Quality:	Fish Quality Control/Assurance.
Others:	Biochemistry; Consultation; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Fishing Technology; Fish Culture; Marine Pollution; Modelling; Fisheries Economics; Anthropology; Vessel Design; Labour Conditions at Sea and in Industry.

Present Programmes: In all fields of interests.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control; Food Technology; Logistics; Image Analysis; Electronics.
Seagoing Vessels:	73m and 28m ships and 2 small inshore ships.

NETHERLANDS 0117

Rijks-Kwaliteitsinstituut voor Land-en Tuinbouwprodukten (RIKILT-DLO)
State Institute for Quality Control of Agricultural Products (RIKILT-DLO)

Address: Wageningen NL 6700 AE

Tel: (31)-83-701.9110
Fax: (31)-83-701.7717
Mail to: PO Box 230, Wageningen NL 6700 AE

Head of Organization Dr J. van de Vooren
Type of Organization Research Institute, Research and Quality Control Centre
Responsible Authority Ministry of Agriculture, Nature Management and Fisheries of the Netherlands

Number of Staff: Scientists: 25 Others: 130
Working Languages: Dutch

Present Programmes: Fundamental and Applied Research on Food Quality and Safety. Acting as Supervising and Reference Laboratory for the Inspection of the Quality and Safety of Agricultural Products. Support to Legal Inspection.

Working Facilities:
Laboratories: Chemistry; Biochemistry; Microbiology; Instrumental Analysis; Toxicology; Microscopy; Histology.

TRINIDAD AND TOBAGO 0118

Caribbean Fisheries Training and Development Institute

Address: Western Main Road, Chaguaramas, Port of Spain

Tel: (809)-634.4276/4587
Fax: (809)-634.4405
Mail to: PO Box 1150, Port of Spain

Head of Organization Principal, Carlise M. Jordan
Type of Organization Training and Development Centre
Responsible Authority Ministry of Agriculture, Land and Marine Resources

Number of Staff: Scientists: 1 Others: 5
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Drying; Salting/Drying; Smoking; Marinades.
Species:	Crustaceans.
Development:	New and Traditional Products; New and Traditional Processes; New and Traditional Packaging; New and Traditional Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Consultation; Training; Extension; Stock Assessment; Fishing Technology.

Working Facilities:

Laboratories:	Processing; Engineering; Quality Control.
Others:	Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Research Vessel; Machine Shop; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Training for Seafarers	on-going	2-10 weeks	English
Fish and Fishing Technology	on-going	2-10 weeks	English

TUNISIA 0119

Institut National Scientifique et Technique d'Océanographie et de Pêche

Address: 28 Rue du 2 Mars 1934, Salammbo 2025

Tel: (216)-1-730.548
Fax: (216)-1-732.622

Head of Organization Professor/Director General, Dr Amor El Abed
Type of Organization Research Institute; Government Dept.
Responsible Authority Secrétariat d'Etat à la Recherche Scientifique et à la Technologie

Number of Staff: Scientists: 47 Others: 124
Working Languages: Arabic; English; French

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration; Live Fish Transport/Holding/Storage.
Processing:	Fish Proteins; Fish Oil.
Species:	Crustaceans; Molluscs; Cephalopods; Algae.
Development:	Traditional and New Fish Products; Traditional and New Processes; Fish Waste Utilization.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Training; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Quality Assurance - Pollution (Heavy Metals, Pesticides, Microbiology). Biochemical Composition.

Working Facilities:

Laboratories:	Chemistry; Biology; Engineering; Biochemistry; Microbiology; Quality Control; Pathology.
Others:	Library; Research Vessel; Fish Culture Ponds.

TURKEY 0120

Ataturk University Fisheries Department

Address: Agriculture Faculty, Atatürk University, Erzurum 25240

Tel: (90)-422-218.4120, 2566

Head of Organization Prof. Dr M. Sitki Aras
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Prof. Dr M. Sitki Aras

Number of Staff: Scientists: 4 Others: 2
Working Languages: Turkish; English; German

Major Fields of Interest:

Processing:	Drying; Salting/Drying; Freezing.
Development:	New Fish Products.
Quality:	Fish Inspection.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture.

Present Programmes: Determination of Pre- and Post- Mortem Chemical Changes of Fish Meat after Handling.

Working Facilities:

Laboratories:	Biology; Biochemistry.
Others:	Cold Storage; Test Kitchen; Taste Panel Room; Library; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Advances in Fish Technology	yearly	one semester	Turkish
Oceanography	yearly	one semester	Turkish
Fish Culture	yearly	one semester	Turkish
Fish Biology	yearly	one semester	Turkish

Serial Publications: Aquaculture Journal of the Doga

TURKEY 0121

Department of Fishing and Processing Technology

Address: Sinop Fisheries Faculty, Sinop 57000

Fax: (90)-3761-261.6060

Head of Organization Professor, Dr Ibrahim Erkoyuncu
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Dean, Sinop Fisheries Faculty

Number of Staff: Scientists: 4 Others: 5
Working Languages: Turkish

Major Fields of Interest:

Processing:	Salting/Drying; Smoking; Canning; Freezing.
Development:	Traditional Processes.
Others:	Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing.
Others:	Cold Storage; Library; Research Vessel.

Other Training Programmes:

Title	Duration	Language
Diving	10 days	not specified

TURKEY 0122

Ege University, Faculty of Fisheries

Address: Ege University Faculty of Fisheries Bornova, Izmir 35100

Tel: (90)-232-752.1162/388.3225
Fax: (90)-232-388.3685

Head of Organization Dean, Prof. Dr Atilla Alpbaz
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Prof. Dr Atilla Alpbaz

Number of Staff: Scientists: 3 Others: 2
Working Languages: English; German

Major Fields of Interest:

Handling:	Onshore.
Processing:	Salting/Drying; Smoking; Freezing; Minced Products.
Species:	Crustaceans; Molluscs; Cephalopods.
Development:	Traditional Fish Products; Traditional Processes; Traditional Packaging; Traditional Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Seafood Processing Technology and Quality Control.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Microbiology; Quality Control; Aquaculture; Fish Food; Phytoplankton.
Others:	Cold Storage; Taste Panel Room; Library; Research Vessel; Fish Culture Ponds.

TURKEY 0123

Fisheries Research Institute - Inland Water

Address: Su Urunleri Arastirma Enstitusu Mudurlugu, Koprubasi 32500

Tel: (90)-246-312.3090
Fax: (90)-246-312.3539

Head of Organization Mr Sedat Karakoyun
Type of Organization Research Institute
Responsible Authority Mr Sedat Karakoyun

Working Languages: Turkish; English

Major Fields of Interest:
- Handling: Onshore.
- Others: Fishery Resources; Fishery Biology; Fish Culture.

Working Facilities:
- Laboratories: Chemistry; Biology.
- Others: Library.

TURKEY 0124

Kepez Water Products Production Station

Address: Antalya 07001

Fax: (90)-3111-332.6700
Mail to: P.K. 190, Kepez/Antalya

Head of Organization Director, Mr Murat Dogan
Type of Organization Loc. Authority
Responsible Authority Ministry of Agriculture

Number of Staff: Scientists: 21 Others: 45
Working Languages: Turkish

Major Fields of Interest:
- **Handling:** Depuration; Live Fish Transport; Storage.
- **Others:** Management Information; Fishing Technology; Fish Culture.

Present Programmes: Rebuilding of Working Facilities.

Working Facilities:
- **Laboratories:** Quality Control.
- **Others:** Library; Machine Shop; Fish Culture Ponds; Fish Culture Cages; Fish Culture Tanks.

TURKEY 0125

Ministry of Agriculture Fisheries Research Institute

Address: 61250 Yomra, Trabzon

Tel: 90-462-341.1053/4/5
Fax: 90-462-341.1056
Mail to: PK 129, Trabzon 61250 Yomra

Head of Organization Director, Mr Yilmaz Bekiroglu
Type of Organization Research Institute
Responsible Authority General Directorate of Agricultural Research, Fisheries Department

Number of Staff: Scientists: 11 Others: 6
Working Languages: Turkish

Major Fields of Interest:

Handling:	Onboard; Onshore.
Development:	Traditional Fish Products; Traditional Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Nutrition; Statistics; Economics; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Fish Culture; Marine Pollution.

Present Programmes: Forming of Onchorynchus MIXIS;
Floating Cage Models for Black Sea;
Stock Assessment;
Fishery Resources.

Working Facilities:

Laboratories:	Chemistry; Biology; Engineering; Biochemistry; Microbiology.
Others:	Library; Research Vessel; Fish Culture Ponds.

TURKEY 0126

The University of Suleyman Demirel, Egirdir Fisheries Faculty, Isparta

Address: Yazla Nahallesi, Egirdir, Isparta 32500

Tel: (90)-246-312.2084/312.2085
Fax: (90)-246-312.2785
Email: Sdunive@Servis2net.tr

Head of Organization Director, Prof. Dr M. Yasar Aksoylar
Type of Organization Univ. Dept./Higher Educ.

Number of Staff: Scientists: 28
Working Languages: Turkish; English

Major Fields of Interest:

Handling:	Onshore.
Processing:	Salting/Drying; Smoking; Freezing.
Species:	Fish (Rainbow trout, Cyprinus carpio); Molluscs; Algae.
Development:	New Fish Products; New Equipment.
Others:	Nutrition; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Fish Production;
Fishing Technology;
Marine Biology;
Fish Handling.

Working Facilities:
Laboratories: Chemistry; Biology; Processing; Engineering; Microbiology; Quality Control.

Regular Training Programmes:

Title	Frequency	Duration	Language
University Course	yearly	8 semester	Turkish

Serial Publications: Journal of Egirdir Fisheries Faculty, University of Suleyman Demirel

TURKEY 0127

University of Ankara, Faculty of Agriculture, Department of Fisheries

Address: Ankara 06110-Diskapi

Tel: (90)-312-317.0550 ext 1438
Fax: (90)-312-317.6724

Head of Organization Prof., Dr Dogan Atay
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Dean of Faculty

Number of Staff: Scientists: 5 Others: 10
Working Languages: Turkish

Major Fields of Interest:
- **Processing:** Smoking.
- **Species:** Rainbow Trout; Carp.
- **Others:** Training; Fish Culture.

Working Facilities:
- **Laboratories:** Chemistry; Biology; Plankton Lab.; 2 Fish Farming and Research Stations.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Processing	yearly	3 hours/week/semester	Turkish

UGANDA 0128

Food Science and Technology Research Institute (FOSRI) (Incorporating Formerly Fish Technology Laboratory)

Address: Nakawa Industrial Area, off Kampala/Jinja Road, Kampala

Fax: 256-42-21.070
Mail to: PO Box 7852, Kampala

Head of Organization not given
Type of Organization Research Institute
Responsible Authority Director General, National Agricultural Research Organisation (NARO)

Number of Staff: Scientists: 3 Others: 3
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Freezing; Minced Products; Smoking; Chilling.
Development:	New Fish Products; New Packaging.
Quality:	Fish Inspection; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Consultation.

Present Programmes: Fish Quality Improvement Studies; Effect of Size, Season, Fishing Ground and Processing on the Keeping Quality and Nutritive Value of Nile Perch; Product Development using By-products of Industrial Processing.

Working Facilities:

Laboratories:	Chemistry; Processing; Biochemistry; Microbiology; Quality Control.
Others:	Library.

Serial Publications: Uganda Journal of Agricultural Sciences
African Journal of Hydrobiology and Fisheries

UNITED KINGDOM 0129

Birmingham University

Address: School of Biological Sciences, University of Birmingham, Edbaston, Birmingham B15 2TT

Tel: 44-21-414.5472
Fax: 44-21-414.5925
Email: E.W.Taylor@bham.ac.uk

Head of Organization Professor of Animal Physiology, Dr E.W. Taylor
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Vice Chancellor of University

Number of Staff: Scientists: 5 Others: 2
Working Languages: English

Major Fields of Interest:

Handling:	Live fish transport; Swimming Flumes; Respirometers.
Processing:	Smoking; Fish Oil.
Species:	Fish (Sturgeon, Eels, Trout); Crustaceans.
Development:	Traditional and New Products.
Others:	Biochemistry; Nutrition; Fish Culture; Pollution, Freshwater/Esturine.

Present Programmes: Pollution Studies on Swimming Fish; Effects of Diet/Temperature/Oxygen/pH on Fish Growth and Responses to Stress; Biology; Biochemistry.

Working Facilities: Test Kitchen; Taste Panel Room; Library; Freshwater and Marine Aquarium for Experimental Work; Blood and Tissue Analyser.

Other Training Programmes:

Title	Duration	Language
Post Graduate Courses (PhD)	3 years	English

UNITED KINGDOM 0130

Department of Agriculture for Northern Ireland. Aquatic Systems Group

Address: Newforge Lane, Belfast BT9 5PX

Tel: 44-1232-255.236
Fax: 44-1232-382.244

Head of Organization Head, Dr S.I. Heaney
Type of Organization Research Institute; Government Dept.
Responsible Authority Department of Agriculture (NI) - UK Government

Number of Staff: Scientists: 10 Others: 14
Working Languages: English

Major Fields of Interest:

Species: Finfish; Crustaceans; Molluscs.
Others: Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Marine Pollution.

Present Programmes: Fish Stock Management; Restoration of Freshwater Fisheries between Biological Oceanography and Fisheries and Multispecies Modelling.

Working Facilities:

Laboratories: Chemistry; Biology.
Others: Library; Research Vessel.

UNITED KINGDOM 0131

Leatherhead Food Research Association

Address: Randalls Road, Leatherhead KT22 7RY

Tel: 44-372-376.761
Fax: 44-372-386.228
Email: bhart@lfra.co.uk
Telex: 929 846

Head of Organization Director, Dr Mark Kierstan
Type of Organization Research Institute
Responsible Authority Membership/Funding Body for Individual Contract

Number of Staff: Scientists: 4 Others: 2
Working Languages: English

Major Fields of Interest:
- **Development:** New Packaging.
- **Quality:** Fish Inspection; Fish Quality Control/Assurance.
- **Others:** Biochemistry; Consultation; Agar/Alginate/Carageenen; Chitin/Chitosan; Fish Oils; Shelf-life.

Present Programmes: Packaging; Microbiology.

Working Facilities:
- **Laboratories:** Chemistry; Processing; Engineering; Microbiology.
- **Others:** Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Packaging; Smoking.

UNITED KINGDOM 0132

Loughborough University of Technology, Department of Chemical Engineering

Address: Ashby Rd., Loughborough LEII 3TU

Tel: 44-1509-222.517
Fax: 44-1509-231.746
Email: cggmh@lut.ac.uk
Telex: 34 319 UNITEC

Head of Organization Dr George Michael Hall, Lecturer
Type of Organization Univ. Dept./Higher Educ.
Responsible Authority Head of Department of Chemical Engineering

Number of Staff: Scientists: 3 Others: 1
Working Languages: English; French; Malay

Major Fields of Interest:

- **Processing:** Fermentation; Minced Products; Fish Meal; Waste Processing, Prawn/Shrimp; Chitin/Chitosan; Fish Silage.
- **Species:** Algae.
- **Development:** New Fish Products; Traditional and New Processes; New Equipment.
- **Others:** Biochemistry; Product Recovery.

Present Programmes: GEC "FAR" Programme; Lactic Acid Fermentation for Preservation of Fish and Fish Products.

Working Facilities:

- **Laboratories:** Chemistry; Processing; Engineering; Biochemistry; Microbiology.
- **Others:** Pilot Plant; Library; Machine Shop.

UNITED KINGDOM 0133

Natural Resources Institute

Address: Central Avenue, Chatham Maritime, Chatham ME4 4TB

Tel: 44-634-880.088
Fax: 44-634-880.066/77
Telex: 263907/8 NRI CHATHAM

Head of Organization Director, Mr Anthony Beattie
Type of Organization Government Agency
Responsible Authority Overseas Development Administration (ODA)

Number of Staff: Scientists: 20 Others: 120
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore; Depuration; Post-Harvest Strategic Research.
Processing:	Drying; Salting/Drying; Fermentation; Smoking; Freezing.
Species:	Crustaceans.
Development:	Traditional and New Fish Products; Traditional and New Processes; Traditional and New Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Fishery Biology; Management Information.

Present Programmes: Wide Range of ODA and Multilateral Work, eg. SIFR; Post-harvest Workshops Coordination.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Engineering; Biochemistry; Microbiology; Quality Control.
Others:	Cold Storage; Taste Panel Room; Library; Machine Shop; Laboratories and Handling Facilities (eg.Ice Smokers) at a Small Scale.

Regular Training Programmes:

Title	Frequency	Duration	Language
Handling and Quality of Fish in the Tropics	yearly	3 months	English

Others:

Title	Duration	Language
Tailored Courses for Project Needs		English

UNITED KINGDOM 0134

Sea Fish Industry Authority, Seafish Training

Address: Seafish House, St Andrew's Dock, Hull, North Humberside.

Head of Organization Training Director, Mr Kenneth D. Waind
Type of Organization Industrial Training Organization
Responsible Authority Seafish Board, MAFF and Department of Employment

Number of Staff: Scientists: 6 Others: 3
Working Languages: English

Major Fields of Interest:

Handling: Safety Training; Catching Techniques; Fish Handling.
Processing: Hygiene Training; Processing Skills; Quality.
Development: Standards and Qualifications, Training Programmes and Materials, Open Learning and Careers Literature for Fish Catching, Processing and Retailing; Training Programmes and Training Materials for Fish Catching, Processing and Retailing.
Others: Hygiene Training, Customer Care and Fish Preparation in Fish Retailing; Training in Industry through a National Network of Industry Training Associations.

Working Facilities: Fisheries Training Centre; Multimedia Computing; Desk Top Publishing.

Serial Publications: Open Learning Modules; Training Manuals; Training Videos

UNITED KINGDOM 0135

Seafish Industry Authority, Seafish Technology

Address: Seafish House, St. Andrew's Quay, Hull, North Humberside HU3 4QE

Tel: (44)-1482-327.837
Fax: (44)-1482.223.310
Email: J-Dorset@Seafish.demon.co.UK
Telex: 597 261

Head of Organization Technical Director, Mr. John Edward Tumilty
Type of Organization Public Research Institute
Responsible Authority Seafish Board and MAFF

Number of Staff: Scientists: 30 Others: 14
Working Languages: English

Major Fields of Interest:

Handling: Onboard; Onshore; Depuration; Transportation; Purification; Bulk Handling and Storage; Live Fish Transport/Storage/Holding.
Processing: Smoking; Freezing; Minced Products; Fish Meal; Chilling.
Species: Finfish (Demersal and Pelagic); Crustaceans; Molluscs; Cephalopods.
Development: New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment; Fish Waste Utilization; Shelf-life.

Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others: Nutrition; Statistics; Economics; Consultation; Training; Fishery Resources; Stock Assessment; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution; Fishing Gear and Methods: Selectivity, Conservation, Impact of Towed and Static Gear.

Working Facilities:

Laboratories: Processing; Engineering; Microbiology; Quality Control.
Others: Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Machine Shop; Flume Tank.

Serial Publications: Seafish Technical Reports; Trade Press

UNITED KINGDOM 0136

The University of Hull International Fisheries Institute

Address: Cottingham Road, Hull HU6 7RX

Tel: 44-1482-466.421/346.311
Fax: 44-1482-470.129
Telex: 9312134728 HUG

Head of Organization Institute Director, Dr Keith Harry Haywood
Type of Organization Research Institute; Univ. Dept./Higher Educ.; Consultancy.
Responsible Authority The University of Hull

Number of Staff: Scientists: 11 Others: 3
Working Languages: English; Spanish; French

Major Fields of Interest:

- **Handling:** Onboard; Onshore; Depuration; Live Fish Transport.
- **Processing:** Drying; Salting/Drying; Fermentation; Smoking; Canning; Freezing; Minced Products; Fish Meal; Chilling; Packaging; Irradiation.
- **Species:** Crustaceans; Molluscs; Cephalopods.
- **Development:** Traditional and New Fish Products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment.
- **Quality:** Fish Inspection; Quality Control; Fish Quality Control/Assurance; Hygienic Design of Premises and Equipment.
- **Others:** Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution; Policy Formulation; Development and Planning; Project Management.

Present Programmes: Ripening of Cured Pelagic Species Products; Quality Assurance in Fish processing; Improved Methods of Monitoring Fishing methods and Catches; Strategies for Increasing Adoption of More Selective Fishing methods; Implementation of HACCP Based Quality Assurance Strategy in Fishery and Aquaculture Products.

Working Facilities:

- **Laboratories:** Biochemistry; Quality Control; Aquaculture; Fishing Simulation; Fishing Gear Technology.
- **Others:** Cold Storage; Test Kitchen; Library; Fishing Simulator.

Regular Training Programmes:

Title	Frequency	Duration	Language
Post Graduate Diploma/MSc Fisheries Studies	yearly	12 months	English
Fishery Product Quality Management and Marketing	yearly	1 month	English
Aquatic Resources and the Environment	yearly	1 month	English

Others:

Title	Duration	Language
Fishery Project Management	1 month	English

UNITED STATES OF AMERICA 0137

Galveston Laboratory of the National Oceanic and Atmospheric Administration (NOAA), and the National Marine Fisheries Center, Southeast Fisheries Center

Address: NOAA, NMFS, 4700 Avenue U, Galveston TX 77551-5997

Tel: 1-409-766.3500
Fax: 1-409-766.3508

Head of Organization: Laboratory Director, Dr Roger Zimmerman
Type of Organization: Federal Government Department
Responsible Authority: National Marine Fisheries Service, Southeast Fisheries, Science Centre and Regional Office

Number of Staff: Scientists: 25 Others: 40
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore; Research on Landings.
Species:	Fish; Crustaceans; Molluscs; Sea Turtles.
Development:	New Equipment; Research.
Others:	Statistics; Fishery Resources; Stock Assessment; Fishery Biology; Management Information; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Research on Shrimp and Bottomfish Fisheries;Research Fishery Interaction with Protected Sea Turtles and Marine Mammals.

Working Facilities:

Laboratories:	Biology; Aquaculture.
Others:	Library; Research Vessel; Flow Through Sea Water System for Research.

Regular Training Programmes:

Title	Frequency	Duration	Language
College Studies	Continuously	Semester	English

Serial Publications: Peer Review Journal Articles; Technical Memorandum; Technical Reports

UNITED STATES OF AMERICA 0138

Gloucester Laboratory of the National Oceanic and Atmospheric Administration (NOAA), and National Marine Fisheries Service (NMFS)

Address: Emerson Avenue, Gloucester MA 01930

Tel: 1-50-508-281.9313
Fax: 1-50-508-281.9322

Head of Organization Laboratory Director, Mr Robert J Learson
Type of Organization Research Institute; Government Dept.
Responsible Authority US Department of Commerce, NOAA, NMFS Northeast Fishery Science Center

Number of Staff: Scientists: 17 Others: 6
Working Languages: English

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Canning; Freezing; Minced Products; Fish Waste Utilization; Seafood Quality and Safety.
Species:	Crustaceans; Molluscs; Cephalopods; Algae.
Development:	Traditional and New Fish products; Traditional and New Processes; Traditional and New Packaging; Traditional and New Equipment.
Quality:	Quality Control; Fish Quality Control/Assurance; Safety.
Others:	Biochemistry; Nutrition; Marine Pollution; Marine Biotoxins; Chemistry, Analytical.

Present Programmes: Marine Biotoxins; Quality and Safety Analysis; Organic Contaminants.

Working Facilities:

Laboratories:	Chemistry; Processing; Biochemistry; Microbiology.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Machine Shop.

Regular Training Programmes:

Title	Frequency	Duration	Language
Internship		3-12 months	English

UNITED STATES OF AMERICA 0139

National Oceanic and Atmospheric Administration, Southeast Fisheries Science Centre (SEFSC)

Address: 75 Virginia Beach Drive, Miami FL33176

Tel: 1-305-361.4285
Fax: 1-305-361.4219

Head of Organization Director, Dr Bradford E. Brown
Type of Organization Research Institute, Regional Authority, Government Dept.
Responsible Authority National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce

Number of Staff: Scientists: 51 Others: 10

Working Languages: English

Major Fields of Interest:

Handling:	Depuration.
Processing:	Fish Oil.
Species:	Crustaceans; Molluscs; Algae.
Development:	Traditional and New Fish Products; Traditional and New Processes; New Equipment.
Quality:	Quality control; Fish Quality Control/Assurance.
Others:	Biochemistry; Nutrition; Statistics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Fishing Technology; Marine Pollution.

Present Programmes: Forensics; Biotoxins; Biomedical Test Materials; Contaminants; Chemistry; Biotechnology; Ecotoxicology; Pathogens.

Working Facilities:

Laboratories:	Chemistry; Biology; Engineering; Biochemistry; Microbiology; Quality Control.
Others:	Pilot Plant; Library; Research Vessel.

Other Training Programmes:

Title	Duration	Language
Turtle Excluder Device (TED) Technology transfer		
Bycatch Reduction Device (BRD)		

Serial Publications: NOAA Technical Memorandum

UNITED STATES OF AMERICA 0140

Northeast Fisheries Science Centre

Address: 166 Water Street, Woods Hole, Massachusetts 02543-1097

Tel: 1-508-548.5123
Fax: 1-508-548.5124

Head of Organization Mr Allen E. Peterson Jr.
Type of Organization Research Institute; Government Dept.
Responsible Authority National Marine Fisheries Service (NMFS), Northeast Region, National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce.

Number of Staff: Scientists: 15 Others: 3
Working Languages: English

Major Fields of Interest:

Species: Crustaceans; Molluscs; Cephalopods; Algae.
Quality: Fish Quality Assurance; Resource Contaminant Analysis; Biotechnology.
Others: Biochemistry; Nutrition; Statistics; Economics; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Management Information; Marine Pollution; Ecosystem Analysis; Pollutant Effects; Pathobiology.

Present Programmes: Contaminant Chemistry; Quality and Safety Analysis; Protein Chemistry and Biotechnology.

Working Facilities:

Laboratories: Chemistry; Biology; Processing; Biochemistry; Microbiology; Quality Control.
Others: Pilot Plant; Cold Storage; Test Kitchen; Taste Panel Room; Library; Research Vessel; Research Aquarium; Artificial Spawning/Rearing/Holding Facilities.

URUGUAY 0141

Institute of Fisheries Research

Address: 1160 Tomas Basanez, Montevideo 11300

Tel: 598-2-621.496
Fax: 598-2-680.121
Email: postmaster@vetpes.edu.uy

Head of Organization Director, Dr Bertullo Enrique
Type of Organization Research Institute
Responsible Authority Veterinary Faculty, University of Uruguay

Number of Staff: Scientists: 20 Others: 6
Working Languages: Spanish; English

Major Fields of Interest:

Handling:	Onboard; Onshore.
Processing:	Freezing; Fermentation; Minced Products.
Species:	Cephalopods; Frogs.
Development:	Traditional and New Fish Products; Traditional Packaging; Traditional Processes; Traditional Equipment.
Quality:	Fish Inspection; Quality Control; Fish Quality Control/Assurance.
Others:	Biochemistry; Consultation; Training; Extension; Fishery Biology; Fish-Culture.

Present Programmes: Frozen Minced Products; Frozen Analogs from Antarctic krill; Frozen Breaded Portions; Fish Hydrolysates; Salted Fish.

Working Facilities:

Laboratories:	Chemistry; Biology; Processing; Microbiology; Quality Control.
Others:	Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Library; Research Vessel; Fish Culture Ponds.

Regular Training Programmes:

Title	Frequency	Duration	Language
Fish Technology (Undergraduate)	twice yearly	4 months	Spanish
Fish Inspection (Postgraduate)	1-2 times/year	1 month	Spanish

Others:

Title	Duration	Language
Fish Quality Control/ Assurance	1 month	Spanish

Serial Publications: Institute of Fisheries Research Bulletin

VANUATU 0142

Fisheries Training and Production Centre

Address: FTC 2 PC, Luganville, Santo
Mail to: PO Box 211, Santo

Head of Organization: Manager/Adviser, Captain Angus Scotland
Type of Organization: Government Dept.
Responsible Authority: Government of Vanuatu

Number of Staff: Others: 8
Working Languages: English; Bislama

Major Fields of Interest:

- Handling: Onboard; Onshore.
- Processing: Smoking; Freezing.
- Species: Crustaceans.
- Development: Traditional Fish Products; Traditional Processes; Traditional Packaging; Traditional Equipment.
- Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurance.
- Others: Statistics; Economics; Consultation; Training; Extension; Stock Assessment; Fishing Technology.

Present Programmes: Offshore FAD Development; Economics; Statistics; Quality Control.

Working Facilities: Ice Making Plant; Cold Storage; Test Kitchen; Research Vessel; Machine Shop.

Regular Training Programmes:

Title	Frequency	Duration	Language
Rural Fishing Courses	4-5 times/year	4 weeks	English/Bislama
Extension Updates	twice yearly	2 weeks	English/Bislama
Practical Fishing	yearly	6 weeks	English/Bislama

VANUATU 0143

Fisheries Training Centre

Address: PO Box 211, Luganville, Santo

Telex: 36154

Head of Organization: Mr Simon Malivea Meava
Type of Organization: Government Dept.
Responsible Authority: Director of Fisheries

Number of Staff: Others: 4
Working Languages: Bislama

Major Fields of Interest:

- Handling: Onboard; Onshore.
- Processing: Drying; Salting/Drying; Smoking; Freezing.
- Species: Crustaceans.
- Development: Traditional Fish Products; Traditional Processes; Traditional Packaging; Traditional Equipment.
- Quality: Fish Inspection; Quality Control; Fish Quality Control/Assurance.
- Others: Biochemistry; Nutrition; Statistics; Economics; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Management Information; Fishing Technology; Marine Pollution.

Present Programmes: Training of Rural Fishermen and Fisheries Extension Officers; Fishing Technology; Keeping Data on Catches; Marketing; Packaging of Fish for Local Markets.

Working Facilities:

- Laboratories: Processing; Quality Control.
- Others: Ice Making Plant; Cold Storage.

Regular Training Programmes:

Title	Frequency	Duration	Language
Pacific Island Qualified Fishing Deckhand Course	yearly	10 weeks	*Bislama/English
Rural Fishing Skill Course	5 times/year	4 weeks	*Bislama/English

Others:

Title	Duration	Language
Fish Handling and Quality Control	1 week	Bislama/English
Extension Officers Course	2 weeks	Bislama/English
FAD Construction and Maintenance	2 weeks	Bislama/English
Introduction to Sounders, GPs and Small Chart Work	2 weeks	Bislama/English

Serial Publications: Three Monthly Report

VIET NAM 0144

Research Institute of Marine Products

Address: 170 Lelai Street, Hai Phong 3500

Tel: 84-31-46.656/46.664
Fax: 84-31-45.153

Head of Organization Director, Prof Dr Bui Dinh Chung
Type of Organization Research Institute; Univ. Dept./Higher Educ.; National Authority
Responsible Authority Ministry of Fisheries

Number of Staff: Scientists: 20 Others: 10
Working Languages: Vietnamese; English; Russian; German

Major Fields of Interest:

- **Handling:** Onboard; Onshore.
- **Processing:** Drying; Salting/Drying; Fermentation; Smoking; Fish Meal.
- **Species:** Crustaceans; Molluscs; Cephalopods; Algae.
- **Development:** Traditional and New Fish Products; Traditional and New Processes.
- **Quality:** Quality Control.
- **Others:** Biochemistry; Consultation; Training; Extension; Fishery Resources; Stock Assessment; Oceanography; Fishery Biology; Fishing Technology; Fish Culture; Marine Pollution.

Present Programmes: Methods and Measures for Prevention of Post-harvest Losses; Production of New Value-added Products; Extraction of Agar, Iodtamin, Phycoerithrin, Phycocyanin Pigment, Afinin Acid from Seaweed.

Working Facilities:

- **Laboratories:** Chemistry; Biology; Processing; Biochemistry; Microbiology.
- **Others:** Pilot Plant; Ice Making Plant; Cold Storage; Test Kitchen; Library; Research Vessel; Fish Culture Ponds.

Agar
0047, 0051, 0060, 0144

... and Alginates
0048

.../Alginate/Carrageenan
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Algin
0051

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0012

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Capture and Harvesting
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..... and Raising of Wild Fish
0084

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0013

... -Underlying Biochemistry
0056

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Development of Fish Based Products
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Economic Engineering
0001

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0023

Fat Measuring on Live Fish
0084

Fermentation
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... Oil
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... Oil, Refining
0083

... Protein Concentrate
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... Proteins
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... Waste Utilization
0002, 0003, 0011, 0022, 0047, 0058, 0090, 0084, 0091, 0093, 0107, 0112, 0114, 0119, 0135, 0138

...-based Pet Foods, Dietetic Food, Ready-to-cook Foods and Radiated Foods
0009

Food Chemistry and Technology in General
0092, 0109

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0001, 0002, 0003, 0004, 0005, 0006, 0008, 0009, 0010, 0011, 0012, 0013, 0014, 0015, 0016, 0018, 0019, 0020, 0022, 0025, 0026, 0028, 0030, 0031, 0032, 0033, 0034, 0036, 0038, 0039, 0040, 0045, 0046, 0047, 0048, 0049, 0051, 0053, 0055, 0057, 0064, 0065, 0066, 0067, 0072, 0073, 0077, 0078, 0079, 0082, 0084, 0085, 0086, 0087, 0088, 0090, 0091, 0092, 0093, 0094, 0096, 0098, 0099, 0101, 0102, 0103, 0104, 0105, 0106, 0107, 0108, 0109, 0111, 0112, 0114, 0115, 0116, 0120, 0121, 0122, 0126, 0128, 0133, 0135, 0136, 0138, 0141, 0142, 0143

... and Thawing
0109

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0086

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0009, 0025, 0065, 0093, 0141

Hygiene Training
0134

Icing
0003, 0080, 0101

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0015

Irradiation
0022, 0084, 0087, 0114, 0136

Live Fish Transport/Holding/Storage
0002, 0008, 0030, 0047, 0048, 0064, 0065, 0084, 0087, 0095, 0098, 0100, 0114, 0119, 0124, 0129, 0135, 0136

Marinades
0001, 0002, 0008, 0011, 0047, 0091, 0100, 0119

Marine Fish Culture
0069

...Mammal Oil
0084

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0086

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On shore
0001, 0002, 0003, 0004, 0005, 0006, 0007, 0008, 0009, 0010, 0011, 0012, 0013, 0014, 0015, 0016, 0018, 0019, 0021, 0022, 0026, 0028, 0029, 0030, 0031, 0032, 0033, 0034, 0035, 0036, 0039, 0042, 0043, 0045, 0046, 0047, 0048, 0049, 0051, 0052, 0053, 0056, 0057, 0062, 0063, 0064, 0065, 0066,

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0067, 0069, 0072, 0073, 0078, 0079, 0080, 0083, 0084, 0085, 0086, 0087, 0088, 0090, 0091, 0093, 0094, 0097, 0098, 0099, 0100, 0101, 0102, 0103, 0105, 0108, 0114, 0115, 0116, 0118, 0119, 0122, 0123, 0125, 0126, 0128, 0133, 0135, 0136, 0137, 0138, 0141, 0142, 0143, 0144

Packaging
0001, 0002, 0003, 0004, 0005, 0006, 0007, 0008, 0009, 0010, 0011, 0012, 0013, 0015, 0018, 0020, 0022, 0024, 0026, 0030, 0031, 0032, 0033, 0035, 0038, 0039, 0042, 0044, 0045, 0046, 0047, 0048, 0052, 0056, 0062, 0065, 0066, 0072, 0073, 0078, 0090, 0081, 0082, 0087, 0088, 0090, 0091, 0098, 0100, 0101, 0102, 0102, 0103, 0104, 0105, 0108, 0109, 0112, 0114, 0115, 0116, 0118, 0122, 0128, 0131, 0135, 0136, 0138, 0141, 0142, 0143

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Sea Aquaculture-Culture of Molluscs and Fish
0009

Seafood Quality and Safety
0138

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0058, 0080

... of Fresh/Frozen products for Retail
0013

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0070

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0007, 0011, 0014, 0040, 0047, 0066, 0069, 0084, 0086, 0087, 0093, 0101, 0114

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... Utilization
0002, 0003, 0011, 0014, 0018, 0022, 0047, 0058, 0080, 0084, 0091, 0093, 0107, 0111, 0112, 0114, 0119, 0135, 0138

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Algae

0005, 0010, 0012, 0013, 0015, 0016, 0018, 0019, 0024, 0028, 0029, 0031, 0036, 0037, 0038, 0039, 0040, 0041, 0046, 0048, 0053, 0055, 0057, 0058, 0070, 0072, 0073, 0074, 0086, 0087, 0088, 0090, 0094, 0096, 0098, 0108, 0111, 0112, 0119, 0126, 0132, 0138, 0139, 0140, 0144

Cephalopod
0001, 0002, 0005, 0008, 0009, 0011, 0012, 0013, 0015, 0018, 0020, 0028, 0029, 0031, 0032, 0036, 0038, 0041, 0047, 0048, 0049, 0051, 0053, 0054, 0058, 0062, 0064, 0065, 0066, 0072, 0073, 0076, 0078, 0079, 0086, 0087, 0088, 0090, 0091, 0093, 0094, 0098, 0101, 0103, 0104, 0105, 0108, 0111, 0112, 0114, 0115, 0116, 0119, 0122, 0135, 0136, 0138, 0140, 0141, 0144

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Crustacean
0001, 0002, 0004, 0005, 0008, 0009, 0010, 0011, 0012, 0013, 0014, 0015, 0016, 0019, 0020, 0022, 0026, 0028, 0029, 0031, 0032, 0036, 0039, 0040, 0041, 0042, 0046, 0047, 0048, 0049, 0051, 0053, 0054, 0057, 0058, 0064, 0065, 0066, 0067, 0069, 0070, 0071, 0072, 0073, 0076, 0078, 0079, 0080, 0086, 0087, 0088, 0090, 0091, 0093, 0094, 0095, 0096, 0098, 0100, 0101, 0102, 0103, 0104, 0105, 0108, 0110, 0111, 0112, 0114, 0115, 0116, 0118, 0119, 0122, 0129, 0130, 0133, 0135, 0136, 0137, 0138, 0139, 0140, 0142, 0143, 0144

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0116

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ISBN 92-5-103967-4 ISSN 0429-9345

9 789251 039670

M-40 W4348E/1/3.97/2400